THE SANSKRIT DHĀTUPĀṬHAS

A Critical Study

GAJANAN BALKRISHNA PALSULE

UNIVERSITY OF POONA

POONA 1961

THE SANSKRIT DHĀTUPĀṬHAS

A Critical Study

BY

GAJANAN BALKRISHNA PALSULE, M.A., Ph.D.,

Sub-Editor, Sanskrit Dictionary Department
Deccan College Research Institute, Poona-6

UNIVERSITY OF POONA

POONA 1961

© University of Poona, Poona, 1961.

Thesis accepted by the University of Poona for the Degree of Doctor of Philosophy (1957) and published by the University with financial assistance from the University Grants Commission.

First edition: 500 Copies.
Printed by G. Srinivasachari, B.A., at the G. S. Press, Mount Road, Madras-2.
Published by: W. H. Golay, Registrar, University of Poona, Ganeshkhind, Poona-7.

To
the late

DR. BRUNO LIEBICH

The most understanding and sympathetic
Western exponent of the Sanskrit Dhātupāṭhas

CONTENTS

		Page
	Introduction ..	vii
	Synopsis ..	xi
Chapter		
I.	A Survey of the pre-Pāṇinian Grammatical Thought in the matter of the Verbal Root ..	1
II.	A brief Account of the different Dhātupāṭhas ..	25
III.	Groupings, Anubandhas and other Technical Devices used in the Dhātupāṭhas ..	57
IV.	Meanings: Their Survey in the pre-Arthapāṭha Grammatical Literature ..	89
V.	An Analysis of the Meanings in the Dhātupāṭhas ..	105
VI.	Meanings: Variations in the Definitions ..	129
VII.	Roots: Their conception and the form of Statement ..	159
VIII.	Roots (continued) ..	187
IX.	Variations in Roots ..	217
X.	Conclusion ..	249
	Bibliography ..	255
	Abbreviations ..	257

INTRODUCTION

Vākyakāraṁ Vararuciṁ Bhāṣyakāraṁ Patañjaliṁ/
Pāṇiniṁ sūtrakāraṁ ca praṇato'smi munitrayam//
Bhagnāḥ Pārāyaṇikāś Candrādyā api ca yatra vibhrāntāḥ
Tān dhātūn vivarītuṁ gahanam aho adhyavasitāḥ smaḥ//

The object of the present thesis (which was presented to and accepted by the University of Poona for the degree of Ph.D. in 1957) is to give a clear and detailed exposition of the Sanskrit dhātupāṭhas both as regards their contents and also the method followed by these works in the presentation of their material. A dhātupāṭha is an essential part of every Sanskrit grammatical system since, firstly, the avowed aim of the traditional Sanskrit grammar is to explain the language by a progressive analysis of words into stems and endings, reaching ultimately to the verbal roots; secondly, much of the information on the particular behaviour of roots in various formations is indicated in the dhātup. itself by technical devices like the anubandhas. The dhātupāṭha thus forms the corner-stone on which is built the whole structure of the traditional Sanskrit grammatical system. Hence the importance of a critical study of these works.

Since the publication for the first time, in Europe, of the Pāṇinian dhātup. by Westergaard, much work has been done in this field by scholars like Edgren, Whitney, Liebich, Renou, Katre, P. C. Chakravarti, Pawate, K. C. Chatterji and others. But in spite of the admirable efforts of these scholars, much work still remains to be done. Out of the nine important dhātupāṭhas, only the Pāṇinian dhātupāṭha, and, next to it, the Cāndra one to some extent have been mainly studied so far. The other dhātupāṭhas, though occasionally printed, have never received from the modern scholars that attention which has been bestowed on the two above-named works, although each of these so far neglected works has some peculiar features of its own. In fact a survey of the material as a whole does not seem to have been undertaken so far. Besides, the recently discovered *Kāśakṛtsna-dhātupāṭha* and my critical edition of the *Kavikalpadruma* have brought to light considerable new material. I have utilized all the material not used so far and thus hope to give a more or less complete picture of all the known important Sanskrit dhātupāṭhas. Secondly, the investigations made so far in this subject have been mostly restricted to this or that aspect of the topic. A comprehensive study embracing more or less all the important aspects of the dhātupāṭha-literature as a whole has been a desideratum so far to fulfil which I have contributed my little mite in this work.

The opinion passed so far on the value of the dhātupāṭhas is of a mixed kind. Whereas the Pāṇinian dhātup. e.g. is claimed to be a 'stupendous monument of the human mind' by some, another section of critics finds in it nothing but an 'empty clatter of roots' and in their meanings 'heap of inorganic rubbish'. Apart from being based on insufficient data, such a criticism owes much to a lack of precise understanding of the grammarians' concepts of the root and allied matters. The present thesis, it is hoped, will go some way towards throwing more light on these works and thus enabling a better understanding and appreciation of them.

The study is broadly divided into three topics, viz. (i) the Roots, (ii) the Anubandhas and other technical devices attached to the roots, and (iii) the Meanings corresponding to the three parts of a dhātusūtra or the smallest unit of the dhātupāṭha. Each of these topics is treated in a threefold way: (i) its historical background, (ii) the features common to all the dhātupāṭhas, i.e. those which represent the fundamental aspect of the dhātupāṭha as a whole, and (iii) the variations in the dhātupāṭhas which illustrate the growth of the dhātupāṭha, and concern the comparative aspect of the study. Of these the Anubandhas and the Meanings have been much neglected so far. Besides giving the significance of each and every anubandha used in all the systems, together with a concordance of the different anubandhas used in the different schools, I have also worked out a system which explains, on a rational plane, almost all the anubandhas, which were regarded so far as artificial—a unique feature of this thesis. Similarly the topic of meanings has been here for the first time subjected to a fuller investigation.

As has been made clear in the title, the thesis aims at a study of the dhātupāṭhas and not of the individual roots. The origin and development of the roots of the Skt. language, however fascinating a subject for study, is outside the scope of the present thesis. It is the whole dhāṭupāṭha literature as such, with its common features and differing aspects,—these latter representing, so to say, the development of the dhātupāṭha—that forms the subject of the present investigation.

I have throughout this work used the word 'root' which calls for some explanation. Already the last quarter of the 19th century began to witness a revolution in the concept of the 'root' held by the earlier philologists of that century who had believed that the 'roots' were something real and that at some time in the pre-historic period these 'roots' alone had existed. Since the explosion of this myth, writers generally prefer using the word base (or verbal base), and even those who continue to use the term root either enclose it in the inverted commas, or qualify it with the expression 'the so-called'. I have used the term root in the sense of the 'dhātu' of the ancient

Hindu grammarians who never forgot that the dhātus were only theoretical abstractions which, therefore, had no real existence. The concept of dhātu had only a practical use in explaining the language through its analysis without thereby implying that the dhātus afforded the ultimate explanation. If it is borne in mind that the term is used here in this restricted technical sense, it should not cause any misunderstanding.

The nature of this thesis is mainly descriptive—recording the facts as they are, without entering into the question of their merits or otherwise. On a few occasions I have also ventured on proposing explanations for certain procedures of the grammarians—why, e.g., certain letters alone were chosen as the anubandhas for certain purposes, or why the roots with any nasal penultimate were read with a dental *n* in the dhātupāṭhas, or why palpably secondary roots like *mokṣ, daridrā* etc. should have been included in the list of primary roots, and so on. Another thing to be noted here is that on every controversial issue—or even otherwise wherever it was thought essential—I have adduced the actual facts of the language (mostly as recorded by scholars like BR and Whitney), to prevent the discussion from becoming too theoretical. After all, as Pandit VANAMALI Vedantatīrtha has so aptly observed, 'it would not do to keep Pānini and Whitney in separate compartments of our minds.' But I have also felt it necessary to sound a note of caution against an over-emphasis on the testimony of the extant literature.

The modern science of comparative grammar can justly be proud of its achievements. But partly due to being dazzled by these, and partly because of its having restricted itself to the evidence of the existing literature, a certain school of critics is rather unjustly hard on the ancient Hindu grammarians in its criticism. Much ado is made of what they are supposed to have 'failed to understand', without credit being given for their achievements. Also some of their processes are said to be 'senseless', 'meaningless and unworthy of retention' and marked with 'useless prolixity.' There is only an 'empty clatter' of roots and a 'heap of inorganic rubbish' in meanings! Such a criticism (apart from the question of its validity) is, to say the least, uncharitable. The ancient grammarians certainly deserve a more respectful treatment from us. And, after all, what is the fun of a child priding over its being taller than the grandfather on whose shoulders it is sitting?

Acknowledgement

Before concluding I have to perform the pleasant task of expressing my debt of gratitude. My sincere thanks are naturally due first to Dr. S. M. Katre who has guided this research work of mine. Not only did he suggest this topic of research and hand over all the card-index material to me but also made available to me rare books, gave valuable instructions, and drew my

attention to the lot of pertinent material which only a mind steeped into the subject could do. In fact I may unhesitatingly say that the credit for whatever merit there might be in this thesis is entirely due to him. I am also indebted to the Librarians and the staff of the Libraries of the Bhandarkar Oriental Research Institute and the Deccan College Research Institute, Poona, who have ungrudgingly made available to me whatever books I wanted. I am particularly grateful to Dr. P. K. Gode, the Curator of the Bhandarkar Oriental Research Institute, but for whose influential agency I would not have access to rare MSS., I have utilized for this work. With all this, however, the thesis would still have remained for a longer time in the manuscript form, had not the University Grants Commission made grants to the Universities for publication of Ph.D. theses and if the University of Poona had not selected this thesis for publication.* I, therefore, thank heartily the authorities of both these bodies. Lastly the staff of the G. S. Press of Madras deserves special mention who, in spite of the technical nature of the work, has done its job neatly and efficiently as the reader will see for himself.

Poona,
9th March, 1961.

G. B. PALSULE

* The first three chapters were already printed in the different numbers of *Indian Linguistics* (with additional reprints for being published in book-form) before the University took over this publication. Hence the repetition in these chapters of the note about the chapters being a part of a Ph.D. thesis.

SYNOPSIS

CHAPTER I: A Survey of the pre-Pāṇinian grammatical Thought in the matter of the Verbal Root.

Linguistic consciousness in the Saṁhitās—Etymologies of the Brāhmaṇas—Isolation of stems and endings—The use of the ppl. to indicate a root—Lists of synonymous verbs in the Nighaṇṭu—Unattested verbs in the Nighaṇṭu—Nirukta; its distinction between Ākhyāta and Dhātu; the various modes of denoting a root in the Nirukta—References to pre-Pāṇinian dhātupāṭhas—the ground work of the Pāṇinian dhātup. probably older—An examination of the theory of a lost *vādi*-version of the Pāṇinian dhātup.

CHAPTER II: An Account of the different Dhātupāṭhas.

A brief account, in the chronological order, of the different dhātupāṭhas studied here, with special reference to their peculiar features and innovations—the Pāṇinian dhātup., the model for the later dhāṭupāṭhas: hence its description in detail as regards the principles behind the arrangement of roots, sequences of sub-clauses etc.—An examination of the so-called Śarvavarman's original dhātup. given by Liebich—A fuller description of the newly discovered Kāśakṛtsna dhātup.; remarks on its probable date etc.

CHAPTER III: Anubandhas and other technical Devices.

The device of sub-classes for incidentally furnishing information regarding roots—Anubandhas, a sort of grouping 'in absentia'—Both methods used side by side—Different kinds of anubandhas—A complete statement giving the significance of each and every anubandha—A concordance-table of the anubandhas in the different schools—A system providing a rational explanation of the anubandhas so far regarded as purely artificial—Probable explanation of some 'opaqe' anubandhas—additions and modifications in the later schools explained.

CHAPTER IV: Meanings: their Survey in the pre-arthapāṭha Literature.

The present set of meanings, though found in the Pāṇinian dhātup. is post-Pāṇinian according to the tradition—Tradition confirmed by independent evidence—The possibility of an oral tradition of meanings even at the time of Pāṇini—The earliest collection of meanings in the Nighaṇṭu—the typical formula for stating the meaning in the

Nighaṇṭu and the Nirukta—The addition of meanings in the Nirukta—Introduction of new forms—A complete list of meanings in the Aṣṭādhyāyī—Kātyāyana's view on meanings—A study of meanings in the Bhāṣya—Doctrine of the plurality of meanings.

CHAPTER V: An Analysis of the Definitions.

Common features studied in this Chapter—The group of roots beginning with *t* selected by way of a cross-section—Various forms of stating the meanings.

The quantitative aspect: generally one root, one meaning; but *dhātūnām anekārthatva* categorically asserted—definitions only of the nature of *upalakṣaṇa*—An over-extention of the *anekārthatva* to be checked by a reference to the actual usage of the language—The compilatory character of the *arthapāṭha*.

The qualitative aspect: the majority of the definitions in the form of a synonymous noun—Exceptions: real or independent definitions; particularized definitions; repetitious definitions; interdependent definitions; negative definitions—Some individual peculiarities.

CHAPTER VI: Variations in the definitions.

Variations due to orthographical confusion—Variations due to use of synonyms—Variations due to additions—Variations due to omissions—Variations due to particularization—Variations due to difference of opinion.

Copious cases cited in every group, and important cases thoroughly discussed; new and original explanations suggested in a number of cases.

CHAPTER VII: The Roots

The grammarians' concept of the verbal root—grammarians' position clarified—a root, only an abstraction out of the concrete words—Primary roots and secondary roots—Explanation for reading secondary roots in the dhātupāṭhas—Roots stated in invariably the same form in all the dhātupāṭhas; sporadic exceptions in the Kāśakṛtsna dhātup.—Principles behind the selection of a particular form for stating the root with—The strong form generally chosen—A discussion, as regards the form of some classes of roots undergoing strengthening and weakening of various kinds; roots stated in diphthongs—Fudamental character ascribed to dental mutes and spirant—artificial cerebralization.

CHAPTER VIII: Roots (continued)

Paṇini's division of Sanskrit into Vedic and post-Vedic—Roots given under the heading *chandasi*—Disparity as regards the Vedic roots between the grammarians on the one hand and the evidence of the existing literature on the other—Similar disparity regarding classical roots.—The extent of actual productivity of a root dependent on its individual nature—evidence showing grammarians' awareness of this fact—The doctrine of the *niyataviṣayatva* of words.—Grammarians were only describing, not explaining—The problem of the unattested roots: are they all fictitious?—The tremendous extent of the lost literature—Imperfections of recording in Whitney's 'Roots' etc.—New material come to light—Proper way of looking at the problem.

CHAPTER IX: Variations in the roots.

Variations made by orthographical and other confusion; additions and omissions of roots—Policy towards admission of new material—Evidence for the grammarians' continuous researches in the Vedic literature on the one hand and in the spoken language on the other—The progressive outlook of the grammarians.

CHAPTER X: Conclusion

A brief statement of conclusions arrived at in the previous chapters.

CHAPTER I

A SURVEY OF THE PRE-PĀṆINIAN GRAMMATICAL THOUGHT IN THE MATTER OF THE VERBAL ROOT

A SURVEY OF THE PRE-PĀṆINIAN GRAMMATICAL THOUGHT IN THE MATTER OF THE VERBAL ROOT*

By

G. B. PALSULE, *Deccan College, Poona.*

The most important discovery in the history of Sanskrit Grammar is the abstraction of the verbal root — a discovery which took place long before Pāṇini compiled his Dhātupāṭha, the oldest of its kind that has come down to us.

The interest evinced by the Indians in the phenomenon of language goes back to a very distant past. Traces of the consciousness of some relationship between certain forms of the language are found in very old Sanskrit literature, indeed including even the oldest Saṁhitās. When, for instance, the Vedic poet describes Aśvins as *aśnantau* 'the consumers' and puts the two words in juxtaposition,[1] we see that the similarity between the two words had already struck him, or when he describes the Maruts as '*ye sahāṁsi sahasā sahante*'[2] ('who, with power, overpower the powers [of their enemies]') it is clear that he was vaguely aware of (and perhaps wanted deliberately to give an expression to) the relationship obtaining in these three concrete forms. It will, of course, be too much to suppose that he had grasped the exact relationship between these forms — i.e., he had reduced the forms to a common verbal root and had separated the various morphemes and determined their functions. The tendency to etymologize words is a basic one, as is evidenced by the folk-etymologies found all the world over, and it is no wonder that the Vedic seers, dealing as they did with one of the most transparent of languages, became aware, although in a hazy way, of the formal relationships between cognate words.

If we come to the later Saṁhitās we find that a further step is taken here. Here we see that not only the relationship between certain forms has struck the poet, but that he is also consciously trying to define that relationship. This usually takes the form of explaining the significance of a

* Part of a study submitted to and accepted by the Poona University for the degree of Ph.D. in 1957.

1. RV 8,5,31.
2. RV. 6,66,9.

name. A striking instance of this phenomenon is found in the Atharvaveda 3, 13 where in the first four stanzas four synonyms of the word 'water' are explained. The waters are called '*nadyaḥ*, 'roarers', says the poet, because they roared (*anadatā*) when the dragon was killed; *āpaḥ* 'acquisition', because Indra acquired (*āpnot*) them; *vār* 'choice', because Indra chose (*avīvarata*) them; and *udakam* 'upbreather' because the Great Ones breathed up (*udāniṣuḥ*) on their account. These etymologies which are given right in the spirit of the Brāhmaṇas and the Nirukta, are remarkable for two reasons: firstly, the formula in which they are given (*yad ..... tasmāt*) clearly shows that the poet is consciously trying to explain the significance of the name, and that he is putting it in a logical form; secondly, the origin of all the four names is accounted for by showing that these various names literally mean doers or objects of certain *actions* which the rivers, who bear those names are, as a matter of fact, known to have done or undergone.

The tremendous potentialities of these etymologies are evident enough. We clearly see that they already forestall the typical etymologies of the Brāhmaṇas which later developed into a full-fledged science, such as is represented by Yāska's Nirukta.[3] That some of the etymologies may be — and in fact some are — false, is self-evident. What is important, however, is that they indicate that the Vedic Aryans were already beginning to have a glimpse into the rich and complicated structure of the Sanskrit language; that they had begun to perceive that some of the words which were used as names were connected with — in fact, based upon, — some other words which were used to denote actions. Thus the phenomenon that things get their names usually from some prominent actions connected with them had already begun to attract notice. And from this belief, that names of the things are based upon their actions, it is just a step to the grammatical doctrine that nouns are derived from verbs, once a person becomes linguistically conscious.

This interest in the language grew in the days of the Brāhmaṇas. The tendency to seek the derivations of words is here on the increase. In fact it seems to be a very favourite occupation of the authors of the Brāhmaṇas. According to LIEBICH's calculation there are 49 derivations in the

3. For an interesting and searching recent study of the etymologies in the Nir., see Siddheśvara VARMA, '*The Etymologies of Yāska.*' According to the author's calculation, the total number of etymologies in the Nir. is 1298, of which only '59 are absurd.' After a careful consideration of the merits and defects of the Nir., the author comes to the conclusion (p. 16) that "in spite of an enormous number of crudities in Yāska's etymologies, the epithet of a 'primitive etymological science' cannot be denied to his system."

first six books of the Aitareya Brāhmaṇa.[4] Many of these derivations are, as was to be expected, quite crude but, as LIEBICH has pointed out, it is a mistake to suppose that the authors themselves were not serious with these derivations. The solemn manner in which these are given in more or less all the Brāhmaṇas, and the acceptance of these later on by Yāska rather shows that the etymologies were given in all earnest and that they represent the standard of linguistic knowledge attained in those days.[5]

Among the etymologies of this period there are some which are remarkable for the form in which they are given. Taittirīya Saṁhitā II, 4, 12, 2, for instance, reads thus: *sa imān lokān avṛṇot, yad imān lokān avṛṇot tad vṛtrasya vṛtratvam*, 'He surrounded these worlds; that is the Vṛtra-ness of Vṛtra in that he surrounded (*avṛṇot*) these worlds'. Similarly the AB I, 2, 1 says: *"yad iṣṭibhiḥ praiṣam aicchaṁs tadiṣṭīnām iṣṭitvam"*, 'Since (the gods) desired (*aicchan*) to search (the sacrifice) by means of the iṣṭis, therein lies the iṣṭiness of the iṣṭis'. Here the two words *Vṛtratva* and *iṣṭitva* are worth noting for they show that the author has here effected a two-fold isolation: firstly, the stems *vṛtra* and *iṣṭi* have been abstracted from a large number of concrete forms like *vṛtraḥ, vṛtram, vṛtreṇa*, etc., in one case, and *iṣṭiḥ, iṣṭim, iṣṭyā*, etc., in the other — which concrete forms alone must have actually occurred in the language; secondly, the suffix *-tvá* is also separated from the concrete forms ending in this suffix. Another evidence in support of this separation of the stem and the suffix is the use of the possessive suffixes *-mat* and *-vat* in the Brāḥmaṇas.[6] When, e.g., a verse containing the word *pitṛbhiḥ* is described in the AB III, 3, 8 as *pitṛmat*,[7] we clearly see that here the stem *pitṛ-* is separated both from the ending *-bhiḥ* and the suffix *-mat*. This separation of the stem and the suffix is the first important strictly grammatical achievement which followed in the wake of the etymological speculations. It must have been quite a discovery in those early days and it is probably this achievement which is recorded in the Taittirīya Saṁhitā VI, 4, 7, 3 where it is said that the speech was formerly unanalysed, and that Indra, at the request of the gods split it in two and analysed it.[8]

4. *Einführung* II, 7.

In the whole range of Vedic literature there are no less than 833 etymologies as collected by FATAH SINGH in his *'Vedic Etymologies.'*

5. *Einführung* II, 6.

6. *Einführung* II, 18.

7. AB. 3, 32, 1.

8. *'vāg vai parācy avyākṛtā'vadat. te devā Indram abruvan, imāṁ no vācaṁ vyākuru iti. ..... tām Indro madhyato'vakramya vyākarot.'* Sāyaṇa in his introduction to the bhāṣya on the RV. (I, p. 26) explains the passage thus: *tām akhaṇḍāṁ vācaṁ madhye vicchidya prakṛtipratyayavibhāgaṁ sarvatrā'karot.* He gives a detailed and lucid explanation of the same passage under TS 1, 14 (Anandashrama ed. Vol. I, p. 555):

Let us pursue the instance of the word Vṛtra a bit further. Having arrived at this basic form — the stem — which they knew literally meant 'one who surrounds', it could not have taken long to the authors of the Brāhmaṇas, now that they were linguistically conscious, to come to the conclusion that the word Vṛtra combined in it two elements, one which expressed 'the action' of surrounding, and the other 'the doer' of that action. And since the word-element *vṛ-* was found to be present (in its original or altered form) in the concrete forms like *vṛṇoti, vṛṇute,* etc., this fact might have led them to come to the conclusion that the element *vṛ-* meant 'surround', and the element *-tra* 'the doer' (of the action concerned).[9]

There is another circumstance which might have helped to bring the idea of the verbal root in bold relief. The style of the Brāḥmaṇas is marked with constant repetitions of set phrases and sentences. It often happens that these repeated phrases and sentences contain either related forms (i.e., forms derived from the same root) or similar forms derived from different roots. The constant repetition of these related or similar forms might have been responsible for focussing the attention on the common element in these forms (i.e., the roots) on the one hand and the case-endings and the suffixes on the other. To take a concrete instance: In the AB VII, 14 the juxtaposition *yajai* : *yajasva* occurs six times; in VII, 15 the juxtaposition *uvāca* : *avocat* similarly occurs five times, and *cara* : *cacāra* equal number of times (besides three occurrences of *carataḥ,* four of *caran,* and one of *carāti*). Of particular interest are the series of forms made from a few roots representing the Present (Indicative and Imperative), Perfect and Aorist. They are given below:

Root	Pres. Ind.	Pres. Imp.	Perf.	Aor.
√*jan*	—	*jāyatām*	*jajñe*	*ajani*
„	*jāyante*	*jāyantām*	*jajñire*	*ajñata*
„	*punar..-..jāyante*	*punar-jāyantām*	*punar-jajñire*	*punar-ajñata*
√*pad*	*padyante*	*padyantām*	*pedire*	*apatsata*
√*as* / √*bhū*	*bhavati*	*astu*	*āsa*	*abhūt*
√*āp*	—	*prāpnotu*	*prāpat*	*prāpnot*

yeyaṁ vaidikamantrarūpā vāk sā pūrvaṁ parācī samudraghoṣavad aikyarūpeṇa daṇḍāyamānā tasyāṁ vācy etāvad ekaṁ padam, tasmin pade'pīyaṁ prakṛtir ayaṁ pratyaya ity evaṁ vibhajya sarvataḥ karaṇaṁ vyākaraṇam tādrahitātvād avyākṛtaivā' 'vadat pravṛttā tām Indro madhyato'vakramya vākyapadādirūpeṇa tatra tatrā vicchidyā vibhinnāṁ kṛtavān.

9. Before deciding this meaning of the ending, similar words like *kṣatra, śrotra, dātra* etc., must have been, of course, considered.

Regarding √*jan* (which, by the way, shows here the maximum number of forms) it is worth noting that the A.B. VII, 13 gives the etymology of the word *jāyā*, saying that a wife is so called because the husband, in the form of the son, is once more born (*jāyate*) in her, and links the word with *jananī* in the next stanza. It is easy to see how all this must have had a hand in pointedly drawing the attention to the common verbal element in the related forms.

But though the authors of the Brāhmaṇas had thus become conscious of the verbal root, they were not yet successful in giving an exact expression to it. Though they had grasped the idea mentally, they did not know how to give a concrete shape to it. This is clear from the indirect methods employed by them in referring to a root. Usually when the Brāhmaṇas want to refer to a Vedic stanza as containing a word derived from a particular root, they make use of the past participle of that root.[10] Thus a ṛc containing the word *ud-ajani* is said to be *jātavat* (A.B. I, 16, 3). The various forms themselves, both nominal and verbal, are similarly described *januṣā* (V, 5, 2), *janayanta* (V, 5, 16) and *ajījanat* (V, 16, 4) all being likewise described as *jātavat; yuñjante* (IV, 29, 3) and *yunajmi* (V, 4, 2) are said to be *yuktavat; paryāsa* (V, 1, 3) is said to be *paryastavat* and so on.

But, besides the past participle, other forms also have been requisitioned for this purpose. Thus, *naya* is described as *netṛmat* (I, 10, 1), *jaṅghanat* as *jaghnivat* (I, 25, 8), *huvema* as *havavat* (V, 4, 14), *pibatu* as *pibavat* (III, 29, 5), and *kṣayanta* as *kṣetivat* (V, 20, 4). According to LIEBICH's calculation, the proportion of the cases of past participles thus used to those of all the other forms put together is about 50 : 50 in the A.B.[11] In the later Brāhmaṇas the past participle begins to get the upper hand until it almost ousts out other forms.

It seems reasonable to infer that originally (i.e., before the days of the A.B.) these formations with *-vat*, whether from the past participles or from the agent-nouns and action-nouns, denoted only those particular forms. Thus e.g., the expressions *jātamat* and *netṛmat* originally probably meant only 'a ṛc containing the word *jāta*'[12] and 'a ṛc containing the word *netṛ*' respectively. From this original significance their use seems to have been extended so as to refer to the verbal root which is the basis of these forms.

But the question is: How did the past participle alone, out of a host of forms, come gradually to be preferred more and more, so much so that

10. *Einführung* II, 18.
11. *Einführung* II, 18.
12. as, e.g. in AB V, 5, 12 where RV 1,98,1 which actually contains the word *jātaḥ* is called *jātavat*.

in the later Brāhmaṇas it almost crowded out all other forms? This question has not been answered satisfactorily. It is suggested that the authors of the Brāhmaṇas picked this form because it was such as almost never failed to occur in the actual language.[13] It is also worth considering whether the circumstance, viz., that the past participle almost always contains in it, so to say, the root — the weak form which, in the case of the roots undergoing guṇa-vṛddhi gradation, has all along been regarded by the Indian grammarians as the root proper — whether this circumstance might not have unconsciously influenced the choice of this form to indicate the root.

Whatever might be the origin of this selection of the past participle to represent the root, one thing is sure, that it has left its stamp upon some of the pre-Pāṇinian grammatical terms. The very word *ākhyāta,* the oldest term meaning 'root', is evidently formed under the influence of this Brāhmaṇic method. Similarly *kārita* 'causal', *cikīrṣita* 'desiderative', *cekrīyita* 'frequentative with *-ya*' and *carkarīta* 'frequentative without *-ya*' — all these terms which were originally participle formations from the respective stems (causal, etc.) of √*kṛ* and were subsequently chosen to represent those particular formations —these terms likewise owe their origin to the practice of the Brāhmaṇas to represent the root by the past participle.

This method of denoting the root by the past participle seems to have fallen in disuse after the Brāhmaṇa period. We come across it in Nirukta VII, 14 where Yāska quotes the view of Śākapūṇi regarding the derivation of the word *agni* thus: *tribhya ākhyātebhyo jāyata iti Śākapūṇiḥ, itād, aktād dagdhād vā, nītāt.* Yāska then goes on to explain this view and during the course of the explanation paraphrases the words *itād, aktād* and *dagdhād* by *eteḥ, anakteḥ* and *ḍahateḥ* respectively. Śākapūṇi was evidently a predecessor of Yāska and used the method current in his days, while Yāska himself uniformly employs the new method of using 3 sing. Pres. ind. to denote the root, a method which, it might be noted incidentally, already makes its appearance in the form *kṣetivat* of the A.B. (V, 20, 4).

From the Brāhmaṇas we pass on to the Nighaṇṭu which belongs more or less to the same period. The importance of the Nighaṇṭu for our study of the Sanskrit verb lies in the circumstance that it is the earliest known systematic work clearly dividing the words of the Sanskrit language into the groups of nouns, verbs and particles. It is true that these technical terms

13. Batakrishna Ghosh, *Aspects of pre-Pāṇinian Sanskrit Grammar,* B. C. Law Volume, Part I, p. 340.

themselves do not appear here;[14] also that the distinction between the nominal and verbal forms has not been always accurately observed, seeing that nominal forms of various originations like *cakamānaḥ* (II, 6), *ākṣāṇaḥ* and *āpāṇaḥ* (II, 18), *taḷit* and *ākhaṇḍalaḥ* (II, 19), *vicarṣaṇiḥ* and *viśvacarṣaṇiḥ* (III, 11) are given under verbs while, on the other hand, evidently verbal forms like *vavakṣitha* and *vivakṣase* (III, 15) are given under nouns; still the credit of consciously analysing the words and arranging them in the synonymous groups of nouns and verbs for the first time — in other words the character of a linguistic work as such — cannot be denied it.

Restricting ourselves to the verbs, we notice that in the first three chapters of the Nighaṇṭu in all 313 verbal forms[15] are given in 15 synonymous groups, besides another 12 verbal forms in the chapter IV which are given without any meaning. The root is here represented, as a rule, by the form of the 3 sing. Pres. ind., in the Parasmaipada or the Ātmanepada, as the case may be. But there are exceptions to it, particularly in the case of the Vedic verbs, where the root is represented by other form or forms, and belonging to various persons, numbers, tenses and moods,[16] — in other words, by forms directly picked up from the Veda and introduced here without any alteration.

Whereas the Nighaṇṭu could be said to constitute, in a way, an advance over the Brāhmaṇas since it generally reduces verb-forms to a particular one, viz. the 3 sing. Pres. ind.,[17] which becomes the reigning type in the later works like the Nirukta, there is hardly anything to prove that the Nighaṇṭu had fully isolated the verbal root. Not only the circumstance that nowhere does the root appear in its bare form, but also the manner of presenting the verb-forms leads us to believe that the compiler of the Nighaṇṭu had not yet

14. Only one recension adds the word *nāmāni* in the descriptive remarks after the various groups of nouns, while no word for 'verbs' occurs in similar remarks after the groups of verbs in any recension. It is Yāska who describes in the Nirukta (I, 20) the two divisions thus: *etāvantaḥ samānakarmāṇo dhātavaḥ* and *etāvanty asya sattvasya nāmadheyāni*. The word dhātu is here used in rather a loose sense, since the Nighaṇṭu contains concrete verbs, and not verbal roots.

15. That some of these are not really verbal but nominal forms is already pointed out above.

16. To take just one group by way of illustration, Nigh. III, 19 contains, among others, the following words which represent a sizable variety of forms: *īmahe, yāmi, daddhi, mimiḍḍhi, pīparat, yantāraḥ* and *iṣudhyati;* occasionally the verbal forms are given along with the pre-verbs: *ā cake* (II, 6), *ni vapantu* (II, 19), *vi caṣṭe* (III, 11), *ava tirati* (II, 19) etc.

17. For the philosophical import of this method, and the contrast it affords with the Greek and Latin grammar which use 1. sing. Pres. instead for the same purpose, cf. K. C. Chatterji, *Technique,* Part I, pp. 16-17; also Liebich, *Einführung* II, 27.

penetrated beyond the concrete forms. Sometimes, as said above, the compiler gives forms like *īmahe* (III, 19), *tāḷhi* (II, 19), *abhy arṣa* (III, 21), etc., without reducing them to the usual 3 sing. Pres. ind., probably because he was not sure of that form; while, on the other hand, besides giving this usual representative form he also gives some other forms belonging to the same root. Thus beside the form *aśnute*, he also gives *aśat*, *āṣṭa*, *ānaśe* and *ānaṭ* (II, 18): beside *vaṣṭi*, also *vaśmi* and *uśmasi* (and also the nominal form *uśik!*) (II, 6); beside *babhasti*, also *bapsati*, *bhasathaḥ* and *babdhām* (II, 8). One can understand that *ānaśe* could have been found difficult to connect with *aśnute*, or *uśmasi* to *vaṣṭi*; but why should *vaśmi* occur side by side with *vaṣṭi*, or *vicaṣṭe* side by side with *caṣṭe* (III, 11)? We have either to suppose that the compiler had not as yet fully grasped the exact relationship between these connected forms, — which, in some cases at least, e.g. *vaśmi*: *vaṣṭi*, is a bit incredible — or that he wanted to bring together these allied forms deliberately so as to facilitate understanding of the correct meaning of the verb. But as he gives more than one form only for a few roots and not as a matter of general policy, and as even here he gives only a few forms and not all those which have actually occurred, it would be best to surmise that he was aware of some relationship between these but had not abstracted the root lying at the bottom of these forms.

It is interesting to note that not all the verbs listed in the Nighaṇṭu have actually appeared in the Veda. Indeed there are some, like *kaṇṭati*, *kavate*, *kṣumpati*, *gavate*, *drūḷati*, *dhrati*, *dhrayati*, *dhrāti*, *bisyati*, *misyati*, *śavati*, *svātrati*, *syamati* etc., — to pick up only a few from only one group, viz. II, 14 — which are not only not found in the Veda, but are not found anywhere even in the later literature (excepting, of course, the grammatical works). It has been suggested that such verbs are artificial creations, being coined to explain nominal derivatives and that this would indicate that long before the Nighaṇṭu the etymologists were busy deriving nouns from assumed verbs.[18]

Another feature to be noted about these lists of verbs is that such verbs of common occurrence in the RV as *kṛṇoti*, *cinoti*, *tarati*, *dadāti*, *dadhāti*, *nayati*, *yacchati*, *yajati*, — to quote only a few glaring instances — are not met with in the Nighaṇṭu which shows that the lists were by no means meant to be exhaustive. On the whole it can be certainly said that since the Nighaṇṭu embodies the idea of giving lists of roots with their

18. V. K. RAJAVADE, *Yāska's Nirukta*, pp. 201, 205. However in the verbs quoted by him as not attested in the RV, there are some which are actually met with there, while some others occur in the AV, e.g. *kasati*, *cyavate*, *ardati*, *aniti*, *jrayati*, etc., and so they cannot be called assumed or coined.

meanings, and incidentally it also indicates the present-stem and the voice by means of the concrete form of the root, it can well be regarded as containing the germs of the later Dhātupāṭhas.

From the Nighaṇṭu we pass on to the Nirukta of Yāska, a commentary on the same and which, in the field of ancient Indian Linguistics, stands next in importance only to that wonderful work, Pāṇini's Aṣṭādhyāyī. It is rich in material suggestive of the pre-Pāṇinian stage of grammatical activity obtaining in the days of the Nirukta, out of which we will naturally restrict ourselves here to the part connected with the study of the Sanskrit verb.

The first and the foremost point that must be noted at the outset is that here the verbal root is seen to be already fully abstracted. It is true that Yāska usually cites the root in the form of the 3 sing. Pres. ind., but this practice is evidently followed out of convenience, a practice which continues long after Pāṇini — in fact even to the present day. In II, 1 Yāska notes some grammatical phenomena for the information of etymologists in the course of which he quotes the forms *gatvā* and *gatam* as instances of the elision of the final consonant, and *jagmatuḥ* and *jagmuḥ* as those of the elision of the penultimate vowel (of the root). This clearly proves that the root *gam* as such was fully abstracted, and from the off-hand and unostentatious manner in which he refers to it, it would seem that he is not the first to abstract the root, but that it must have been done already before him. And what applies to the particular instance of the root *gam* evidently applies to the category of the verbal root as such.

Yāska uses two different terms to denote the two different concepts of the 'finite verb' and the 'verbal root'. He defines[19] (I, 1) *ākhyāta* as *bhāvapradhāna* 'that (part of speech) which has becoming as its fundamental notion.' It is made clear further on that it is the *pūrvāparībhūta bhāva* 'an action still in process' that is expressed by an *ākhyāta,* whereas a completed action is expressed by an abstract noun. He does not define the term *dhātu* but merely gives its derivation: *dhātur dadhāteḥ* (I, 20) '(The term) dhātu comes from $\sqrt{dhā}$.' Besides its technical meaning in the grammatical literature, the word also generally means 'layer', 'constituent element' or 'the basic element'. It was then borrowed by the grammarians to denote the verbal root which is 'the basic element' of the word.

Liebich[20] says that Yāska does not make a clear-cut distinction between the two terms *ākhyāta* and *dhātu,* and employs them more or less

19. And his is the first definition of the verb to appear in the annals of the Sanskrit grammar.

20. *Einführung* II, 25, 30.

synonymously. But on a consideration of all those passages in the Nirukta where the term *ākhyāta* occurs K. C. CHATTERJI[21] has rightly shown that it means 'a finite verb' alone whenever it is used by Yāska himself, whereas in the two passages[22] where it means 'root' Yāska is directly quoting from his predecessors — which explains the use of the word in the different signification. Both these latter passages refer (the first in a general way; the second in a particular case) to the verbal origin of the noun and the use of the term *ākhyāta* instead of *dhātu* is to be accounted for by supposing that either these older grammarians had then still not penetrated through the finite verb to the verbal root or, more probably, even after abstracting the root they might have still continued using the older nomenclature. On the other hand, while Yāska always uses the term *dhātu* for the root, we have in the Nirukta at least one set of passages where the term *dhātu* is used with reference to, not the roots, but the concrete verbal forms collected in the Nighaṇṭu: *jvalatikarmāṇa uttare dhātava ekādaśa* (II, 28): *kāntikarmāṇa uttare dhātavo'ṣṭādaśa* (III, 9) etc. But here also Yāska is more or less simply reproducing the descriptive remarks that had probably already come to be appended to the Nighaṇṭu before him. This also shows that like *ākhyāta*, the term *dhātu* also once meant 'finite verb'. With this meaning a *dhātu* might be looked upon as the basic element of the sentence since a verb is, so to say, a key-word in a sentence.[23] It would seem that later on the two terms were particularised to denote two different ideas, *ākhyāta* meaning 'finite verb' and *dhātu* 'verbal root'.

But there is also an intermediate stage in the denotations of the term *dhātu*. It seems that at one time the term *dhātu* was used to denote what we would call the Present-stem, *bhava-*, *dīvya-*, *sunu-* etc. The sole evidence for such an assumption is the existence of a technical term *sārvadhātuka* (and of its counterpart, *ārdhadhātuka*). This term *sārvadhātuka*, which is undoubtedly pre-Pāṇinian and is also used by Pāṇini and Śarvavarman, literally means '(endings) coming after the whole root' and is practically a designation of suffixes added to the Present-stem. This sort of designation makes it at once clear that at the time the term was coined the various elements forming the various Present-stems were regarded as an integral part of the root. In other words, e.g. instead of regarding that *a* is added

21. *Technique*, pp. 68-69.

22. (1) *nāmāny ākhyātajānīti Śākaṭāyano nairuktasamayaś ca* (I, 12); (2) *tribhya ākhyātebhyo jāyata iti Śākapūniḥ* (VII, 14).

23. Cf. WACKERNAGEL, *Altind. Gram.*, Vol. I, p. LXIX, footnote 2. But when WACKERNAGEL goes further and says that this meaning continues down even in Pāṇini in the two terms *sārvadhātuka* and *ārdhadhātuka* he is certainly not right for, as we shall presently see, the word dhātu in these two terms is equivalent to 'Present-stem.'

to *bhū-* in forms like *bhávati* they rather regarded that *a* of *bhava-* was dropped in forms like *babhúva*, etc. *Bhava-* thus was called *sarvadhātu* 'the whole root', and *bhū-*, on account of the alleged loss of *a*, *ardhadhātu* 'the partial root'. What a flood-light thrown upon the grammatical thought in the pre-Pāṇinian period by this development of the ideas expressed by the term *dhātu*! It must have been a slow and tortuous process, starting with the concrete verbal forms, penetrating through these to the Present-stem, the grammatical acumen ultimately tearing open the bare abstract root! And this epoch-making discovery had already taken place before Yāska!

From the Nirukta (especially II, 1-2) much other useful information can be had regarding the general stage of knowledge in its days as far as the subject of the verbal roots is concerned. In II, 2 Yāska says that when a root contains a semi-vowel in close contact with a vowel it is called *dviprakṛtīnāṁ sthānam* 'a place of (or occasion for) two bases' and that when a given form cannot be derived from the well known[24] base, one should seek to derive it from the other one.[25] Here he is evidently referring to the phenomenon of Saṁprasāraṇa though the technical term does not occur and in its place the merely explanatory expression *dviprakṛtīnāṁ sthānam* is used.[26] Like the Saṁprasāraṇa, the phenomenon of guṇa was also known and is referred to by Yāska in X, 17.[27] The endings which do not cause guṇa and the vṛddhi i.e. the weak endings are here called *nivṛttisthāna*.[28]

24. That is how I translate the word *siddhāyām*, taking it to be an attribute of the noun *prakṛtau* understood. SARUP evidently understands *vikṛtau* as the substantive and translates: 'if an accomplished form is not derivable (*anupapadyamānāyām*) from one base' (p. 22). This is questionable. RAJAVADE translates: 'When the actual or unaltered root is inapplicable'; this is slightly better.

25. Actually, as RAJAVADE (p. 302) has pointed out, this definition is too wide and would cover roots like *yat, yam, radh, ram, lajj, vam, vṛḍ* etc. which do not show the phenomenon of saṁprasāraṇa. The roots which actually undergo this phenomenon have been listed by grammarians, e.g. by Pāṇini in 6, 1,15-16 with their attendant circumstances.—Incidentally the recognition of *dviprakṛtīnāṁ sthānam* constitutes a progress over AB which, still unaware of this phenomenon, derives (I,2,1) the word *iṣṭi* 'sacrifice' from √*iṣ* 'desire'.

26. The word *sthāna* has here still its general meaning of 'place', 'position' or 'occasion', and refers to the particular combination of sounds in roots, leading to saṁprasāraṇa. Later on it seems to have been restricted to endings, causing certain phenomena, as in the term *sarvanāmasthāna* (strong endings of declension), and probably also in *nivṛttisthāna* (weak endings in the verbal flexion).

27. *śeva iti sukhanāma, śiṣyateḥ. vakāro nāmakaraṇaḥ, antasthāntaropaliṅgī, vibhāṣitaguṇaḥ* (X, 17).—The related term vṛddhi does not occur, but there is no doubt that this phenomenon, too, must have been noticed.

28. The expression *nivṛttisthāneṣu* is correctly explained by Durga as *guṇavṛddhinivṛttisthāneṣu*. LIEBICH wrongly takes it to be the same as *ārdhadhātuka* when he says: 'für *ārdhadhātuka* sagt Y. *nivṛttisthāna*' (*Einführung* II, 32).

There are certain general observations (in II, 2) on the roots which will do credit even to a modern linguist. Thus he makes a distinction between the *naigama* (i.e. Vedic) and the *bhāṣika* (i.e. belonging to the spoken language) roots, and remarks that sometimes derivatives from Vedic roots are seen to be current in the classical language, and vice versa. He had also observed the different usages in different localities and remarks that in the case of certain roots verbal forms alone are used among certain people, and derivatives alone among others. Lastly, when he says *tatrāpy eke'lpaniṣpattayo bhavanti* he might be referring to the circumstance that certain roots are less productive than others.[29]

Coming to the technical aspect, it is already mentioned above, that even after the full abstraction of the root Yāska cites roots in the form of 3 sing. Pres. ind. This had also been done in the Nighaṇṭu, but there is a difference between such forms as they appear in the Nighaṇṭu and the same appearing in the Nirukta. The forms of the Nighaṇṭu impress themselves as being still forms of the living language, while in the Nirukta they are more or less mechanised forms, — forms conditioned in a grammatical set-up. Thus *aniti*, e.g., in the Nighaṇṭu (II, 14) is still one of the many related forms, chosen to represent the common element in those forms, — the element which was suspected but was not fully abstracted — and this function the form *aniti* discharges without losing its identity. In the Nirukta (XI, 47), on the other hand, it is a mechanical form which means nothing more and nothing less than the root *an*. This mechanical character is brought into bold relief by the fact that Yāska treats them, for the sake of convenience, as declinable stems, as if they were so many verbal nouns in *-ti* (like *gati, mati, kṛti* etc.), and so we have a host of forms like *avatiḥ, kaṇatiḥ, śavatiḥ*[30] etc. in the Nom. Sing. and *avateḥ, īṣateḥ, kramateḥ* etc. in the Abl. Sing.[31] Further mechanisation comes in with the Ātmanepadin roots. They are treated as though they were Parasmaipadin evidently because forms in *-ti* can be declined more easily than those in *-te*. Thus we have *dayate* in

29. The word *eke* evidently requires *dhātavaḥ* as the substantive. But since the subject of *dviprakṛtīnāṁ sthānam* is apparently continued in this sentence, instead of taking the statement as referring to roots in general it is perhaps better to suppose that it applies only to such roots as undergo saṁprasāraṇa and that some roots are taught here to have comparatively fewer forms from the saṁprasāraṇised base than from the normal one.

30. Whereas the nouns in *-ti* of the real language are generally feminine, these purely grammatical formations on the other hand are masculine, evidently because they are meant to be in apposition with the term dhātu. That Yāska treats them as masculine is evident from constructions like *śavatir gatikarmā ..... vikāram asya āryeṣu bhāṣante* (II,2) where the masculine form *asya* is used with reference to *śavati*.

31. Yāska similarly treats indeclinables also as declinable stems. Cf. expressions like *ivo'pi dṛśyate* (I, 10).

the Nighaṇṭu (IV, 1) but *dayatiḥ* in the Nir. (IV, 17), *nasate* in the Nigh. (II, 14), but *nasatiḥ* in the Nir. (VII, 17)[32]. In one extreme case we even find that the concrete form is altogether ignored, and the representative form is simply made by adding *-ti* directly to the root (with a guṇa-strengthening). Thus he says (II, 25) *ṛtur arter gatikarmaṇaḥ* "The word *ṛtu* comes from *arti* (i.e. √ṛ) meaning 'go' ", as against Nighaṇṭu's *iyarti* (II, 14).[33]

But, on a few occasions Yāska uses another method also. It is to add a weak *-i* to the root. Thus we have the forms like *īḷiḥ* (VII, 15; also the usual 3 sing. Pres. form *īṭṭeḥ* VIII, 7), *gṛbheḥ* (X, 23), *tviṣeḥ* (VIII, 13) and *dhiṣeḥ* (VIII, 3). These forms are also evidently made in imitation of corresponding nouns in *-i* (like *ruci, dyuti* etc.) and are employed because they too are likewise easily declinable forms.[34] After Yāska both these forms, the 3 sing. Pres. ind. and the one in *-i*, have been very extensively used in all the periods of Sanskrit grammatical literature. They have been recognized officially as such by Kātyāyana in his Vārttika *ik-śtipau dhātunirdeśe* (under P. 3, 3, 108).[35]

Before we leave the Nirukta, we may note one or two individual instances. It was already recognised that in the forms like *pratta* and *avatta* the first *t* comes from √*dā;* and that the form *āsthat* came from √*as* 'throw' with an additional *th* as an augment[36] (for both, cf. Nir. II, 2) — both of which are, by no means, a small achievement.

From the Nirukta on the one hand to the Pāṇinian Dhātup. on the other is a gap which, in the complete absence of all the pre-Pāṇinian grammatical works, must be filled by speculation alone. That at the time of Yāska there were probably no texts like the dhātupāṭha seems plausible enough.[37] Whereas Yāska enumerates all the nipātas and upasargas, in

32. LIEBICH, *Einführung* II, 27, cites *rocateḥ* as an instance of an ātmanepadin root turned into parasmaipadin; but this particular instance is inconclusive, for *rocateḥ* might be abl. sing. of *rocate* as well as of *rocati*, cf. p. 6,1,110.

33. Curiously enough, the form *arti* recurs in Pāṇini also: *sartiśāstyartibhyaś ca* (3,1,56). What is still more *curious* is that Sāyaṇa actually uses it as a concrete form: *suṣṭhu arti gacchatīti svar udakam* (Bhāṣya to RV I, 100,3), and a similar form *pratyṛtaḥ* under RV 1,59,6.—Incidentally, the similar form *sarti* in the above quoted rule from P may be noted. LIEBICH, *Einführung* II, 51, cites a similar form *neti* from the Vāj. Prāt. III, 87.

34. These forms also are similarly regarded as masculine.

35. = *ik-tipau dhātusvarūpe* Kk. p. 133.

36. Cf. *asyates thuk* p. 7,4,17. Modern scholars are more inclined to regard the form as coming from √*sthā* itself, with a transfer of root-Aorist to *a*-Aorist, and weakening of *ā* to *a*, Cf. WHITNEY, *Gram.* 847; MACD., *Gram.* 507a.4.

37. On this point see LIEBICH, *Einführung* II, 33.

the case of the verbs (as in that of nouns) he gives only a general definition of the verb and illustrates it by a couple of instances. Whichever word conformed to that definition was to be looked upon as a verb; this indicates that there was as yet no list of verbs — no *samāmnāya* or *pāṭha* so to say — to which he could have referred and inclusion in which would give title to the designation of verb — such as, say, Pāṇini's Dhātupāṭha, inclusion in which makes a root according to P. 1, 3, 1. But this state of affairs could not have lasted long. Vyākaraṇa in the last analysis means, at least in the case of regularly formed words in Sanskrit, their reduction to verbal roots, and no system of Sanskrit grammar, however crude, could go on long without some stock of well-listed roots. Pāṇini himself came at the end of a long line of grammarians, many of whom he cites by name. It would be natural to suppose that these grammarians had their own dhātupāṭhas. Occasionally, though rarely, we come across references to these pre-Pāṇinian dhātupāṭhas. Vopadeva, writing in the 13th century, says in the introduction to his Kavikalpadruma that before writing his new dhātupāṭha he studied the views of the eight ancient grammarians.[38] Among the names of these grammarians occur those of Indra and Āpiśali who were Pāṇini's predecessors. Since the remark occurs in connection with the Dhātup. it follows that Vopadeva had studied the dhātupāṭhas of these pre-Pāṇinian grammarians, which apparently still existed in his days. Patañjali's gloss illustrating the use of *ā-√sthā* in his commentary to the Vārttika under P. 1, 3, 22 is believed to refer to some grammarian who had regarded *s* instead of *as* as the root and had declared *a* and *ā* in forms like *asti, āsīt* etc. to be augments.[39] The same passage occurs almost verbatim in the Kāśikā where the commentators tell us positively that the reference is to Āpiśali whose dhātup. they say, read *sa bhuvi* instead of *asa bhuvi* as in other dhātupāṭhas.[40]

38. *Indraś Candraḥ Kāśakṛtsnāpiśalī Śākaṭāyanaḥ*
PāṇinyamaraJainendrā jayanty aṣṭādiśābdikāḥ
matāni teṣām ālokya sarvasādhāraṇaḥ sphuṭaḥ
dhātupāṭhaḥ.....

(Kkd. 2-3).

39. *āṅaḥ sthaḥ pratijñana iti vaktavyam. astiṁ sakāram ātiṣṭhate. āgamau guṇavṛddhī ātiṣṭhate. vikārau guṇavṛddhī ātiṣṭhate* (Bh. Vol. I, p. 280). The last sentence is not read by some Mss.

40. The printed Kāśikā reads *astisaṁkāramātram ātiṣṭhate. vikāro guṇavṛddhī ātiṣṭhate,* which is evidently corrupt. On this Jinendrabuddhi comments thus: *sakāramātram asti-dhātum Āpiśalir ācāryaḥ pratijānīte. tathā hi, na tasya Pāṇiner iva asa bhuvi iti gaṇapāṭhaḥ; kiṁ tarhi? sa bhuvi iti sa paṭhati.* The remarks of Haradatta also are to the same effect. It is not known whether this dhātup. of Āpiśali was actually before these commentators from which they cited, or whether *sa bhuvi* is just a reconstruction on their part. If the first alternative is accepted, it will be an important testimony

These older works might have differed, as is hinted by the case of √*as*, in the matter of their contents and also the accuracy of presentation, according as they belonged to one period or the other in the development of the Sanskrit Grammar. LIEBICH[41] remarks that in the earlier stages of the dhātup. roots were probably given, as in the Nighaṇṭu, in the 3 sing. Pres. ind.: *bhavati, edhate* and so on. He also thinks that to these had probably come to be added some of the important — difficult or irregular — forms of the various tenses and moods, in the manner of the later dhātupārāyaṇas. Both these opinions, however, appear to be pretty improbable. Since the dhātupāṭhas as such are later than the Nirukta, and since the root had come to be isolated already before Yāska, it does not sound logical that the authors of the dhātupāṭhas should have reverted to the primitive form. Similarly the idea of collecting and explaining different forms of a verb, which presupposes more or less a specialised study of a particular branch of the subject, should have naturally suggested at a later date, and not in these early stages. Also the circumstance that the instruction in those days was oral and necessitated the texts to be briefest precludes the possibility of the inclusion of concrete forms in the dhātup.

There are certain features of the P.Dh. (features which have come down in the later dhātupāṭhas also) which indicate that this oldest known dhātup. also may not be an entirely new work but is rather based on an older ground-work. The sequence of the ten classes, which apparently does not follow any logical principle, and the haphazard treatment of the *curādis* seem to be too crude to have come from Pāṇini's pen; it rather seems that this feature was already established before Pāṇini who retained it as a time-honoured practice. The dhātup. contains the technical terms *parasamaibhāṣa, ātmanebhāṣa* (against *parasamaipada* and *ātmanepada* of the sūtrap.) and *carkarīta* (against *yaṅluk* of the sūtrap.) which are, as is well known, creations of Pāṇini's predecessors and seem to have been retained out of regard for them.[42] Often the sūtrap. is seen to modify and supplement the

showing that even before Pāṇini roots were given along with their meanings in the dhātup. and, in some cases like the present one, in identical form as in the P. Dh.—See also PISANI, A Note on Āpiśali, *Journal of the Oriental Research Institute*, Baroda, Vol. 5, No. 3.

41. *Einführung* II, 67.

42. It must, however, be pointed out that though these terms are commonly found in the Mss. and editions of the P. Dh. their appearance there is open to grave doubts. The pada in this dhātup. is indicated, in the case of roots ending in by means of the accent on the anubandha-vowel. So all that is needed is to say that so many roots are *udāttetaḥ*, so many *anudāttetaḥ* etc. The further addition of *parasmaibhāṣāḥ, atmanebhāṣāḥ*, is quite superfluous and so raises doubts regarding their authenticity. Since, however, the terms are explained and declared as belonging to the pūrvācāryas by Maitreya-

dhātup.; some roots which are read only in a particular class in the dhātup. are optionally assigned to some other class by the sūtrap.;[43] similarly, whereas the dhātup. makes use of the anubandha '*ir*' to indicate that the particular root forms its Aorist stem optionally with a weak *-a*, the same fact in the case of some other roots is taught expressly in the sūtrap.,[44] although in many cases this could have been done by means of the anubandha itself. It shows that a particular pattern of the dhātup. had already come to stay before Pāṇini and that the latter retained it out of veneration for the established practice, although it was not perfectly logical and accurate.

On the basis of some of the above arguments, and some others which will be presently cited I. S. PAWATE[45] has come to the extreme conclusion that the entire dhātupāṭha as it is, (excepting, of course, the meanings[46]) is the work of Pāṇini's predecessors. In fact it is his thesis that Pāṇini got the dhātup., along with allied works, handed down to him as *upadeśa* by his teachers. His line of argument is thus : The dhātup. is not a mere appendix to the sūtrap. because it contains a number of roots whose inclusion is not necessary for the purpose of the sūtrap. The dhātup. therefore must have been originally meant to be an exhaustive list of all the roots independent of any sūtrap. The credit of compiling this exhaustive dhātup. must go to the Niruktas and the grammarians like Śākaṭāyana who held that all nouns were derived from verbs. From these predecessors of Pāṇini the dhātup. came to be handed down to him as the 'upadeśa'. That Pāṇini could not have a hand in the making of this exhaustive dhātup. also follows from the circumstance that Pāṇini was not a grammarian of the type of Śākaṭāyana, but rather agreed with Gārgya, since he held that the *uṇādi* formations were irregular. Whatever modifications Pāṇini wanted to make in the dhātup., he did by means of the Aṣṭ. as is clear from the fact that in the sūtrap. are to be found sūtras which supplement, modify, or even go against the dhātup. All these changes were carried out by means of the sūtrapāṭha, keeping the dhātup. intact, because the dhātup. being an upadeśa was regarded as sacred and Pāṇini did not want to tamper with it. As an additional proof PAWATE adduces the existence of pre-Pāṇinian terms in his dhātup. He further cites the case of what are called the sautra roots which, though Pāṇini had occasion to mention in the sūtrap, he did not actually incorpo-

rakṣita, they must have found a place here at least before him. It is important to note that these terms (as also the usual ones like parasmaipadinaḥ) are wholly absent in Kṣīrasvāmin's version of the P.Dh. and so confirm the doubts raised above.

43. P 3, 1, 70.
44. P 3, 1, 58 etc.
45. *Structure*, pp. 5-31.
46. The admission of the meanings in the dhātup. is post-Pāṇinian.

rate in the dhātup. for the same reason of sacredness of the dhātup. All this, concludes PAWĀTE, shows that the author of the dhātup. and Pāṇini are two entirely different persons, that dhātup. was composed long before Pāṇini, and that the latter retained it exactly in the same condition in which he had received it, making all the desired changes through the medium of the sūtrap.

Let us examine this theory briefly. Its starting point, viz., that the dhātup. contains a great deal of roots which are useless for the Aṣṭ. is itself erroneous. Every single root, whether of a general nature or having some special characteristic and therefore requiring a reference in the Aṣṭ., must be actually read in the dhātup. without which it does not get the nomenclature dhātu according to *bhūvādayo dhātavaḥ*, P. 1, 3, 1: '*bhū* and the following (vocables, listed in the dhātup. are called) dhātus'. Even supposing that the word *bhūvādayaḥ* means 'like *bhū*', and the sūtra therefore means that vocables expressive of action are called dhātus (thus making it unnecessary to read every such vocable in order that it may get this nomenclature), still the roots would have to be listed in order to furnish them with the necessary anubandhas (including the accents thus used); lastly, even if a few roots which take the normal vikaraṇa (i.e., belonging to the class I), carry an udātta accent, and have no other anubandha could have been spared, still even in their case, as Kātyāyana tells us, their pāṭha is essential to prevent them from corruption like *āṇapayati*, etc.[47] Thus PAWATE's basic assumption itself, that a number of roots in the dhātup. are unnecessary for the purpose of the sūtrap., is untenable.

The other reasons advanced by him are also inconclusive, for they equally apply to the later schools also where dhātup. and the sūtrap. are admittedly known to be the works by one and the same person. Thus like Pāṇini, Candra (1, 1, 88), Kātantra (3, 2, 33 vā.) and Hemacandra (3, 4, 73) assign, through sūtrap., the roots *bhrāś*, etc., to both I and IV class; like Pāṇini, again, the optional formation of *a*-Aorist is taught in the case of *jṛ* and other roots, through sūtrap. (and not by an anubandha in the dhātup.) by C. (1, 1, 75), Kt. (3, 2, 28 Vā.) and H. (3, 4, 65), also. Similarly the terms *ātmanebhāṣa*, etc., while they do not occur in the respective sūtrap. nevertheless occur in the dhātup. of Kt. and H.

PAWATE speaks of 'sūtras' (i.e., in the plural) running counter to the teaching of the dhātup. though actually he has cited only one instance, viz.

47. Patañjali holds a different view; relying on the *śiṣṭaprayoga* he thinks that the listing of these roots could have been dispensed with. But we are more concerned with the view of the sūtrakāra himself who, and following him also the Vārttikakāra, holds the pāṭha to be essential.

the sūtra *dhinvi-kṛṇvyor a ca'* (3, 1, 80). This rule says that the roots *dhinv* and *kṛṇv*, which have been read in the first class (624 and 629 respectively) form their present-stems with the vikaraṇa *-u* and that at the same time their final *-v* is replaced by *-a*, — in other words these roots form their present stems as *dhinu* and *kṛṇu*, the replaced *-a* being elided by *ato lopaḥ* (P. 6, 4, 48). This difference of view between the sūtrap. and the dhātup. is explained by PAWATE on the hypothesis that what goes by the name of Pāṇini's dhātup. must have been already composed before him when forms like *dhinvati, dhinvataḥ*, etc., were current; that in course of time they became obsolete and gave place to *dhinoti, dhinutaḥ*, etc.; and that through sūtrap. Pāṇini has made the necessary correction of the dhātup. which he had received as his upadeśa.

Now, the only sure thing that can be accepted in the above reasoning is the fact that the two roots have been read in the first class. Beyond that there is no independent evidence to show that the forms like *dhinvati dhinvataḥ*, etc., actually existed at some time. As far as the testimony of the recorded literature goes, the forms with the present stem *dhinu-* alone occur, and nowhere with *dhinva-*;[48] secondly, such a change-over from the thematic to the athematic base is against the tendency of the language which is quite in the opposite direction. I think that the forms like *dhinvanti* (which admit, theoretically, of *dhinva-* as well as *dhinu-* to be the Present-stem) gave rise to the mistaken concept of *dhinva-* being the Present-stem and consequently the roots were listed in the first class. Be it as it may, the fact that there is a contradiction between the sūtrap. and the dhātup. cannot be denied. But it does not follow, merely from this contradiction, that the Pāṇinian dhātup. was composed by somebody before Pāṇini, for the same contradiction can be pointed out in some post-Pāṇinian schools in which the same person wrote dhātup. as well as the sūtrap. At least two of Pāṇini's successors, C. and J. read these roots in the first class itself, only they improve on Pāṇini's technique by declaring the vikaraṇa to be *-nu*, and by laying down a substitution of *dhi* and *kṛ* for *dhinv* and *kṛṇv*. Just as C. and J. did not actually remove the roots to the fifth class, but retained them in the first, presumably simply following the trodden path, so also Pāṇini might have read the roots concerned in the first class simply out of regard for convention, and so this does not necessarily prove that the whole of the P. Dh. as it is is pre-Pāṇinian. Thus it will be seen that this rule which

48. From the base *dhinv-*, there is only one Aorist form recorded, viz. *adhinvīt* (Tāṇḍya Br. 4.10.1); there is no form from the base *kṛṇv-*, Present or otherwise, except those like *kṛṇvanti*, which are liable to be misunderstood as having come from *kṛṇva-*.

PAWATE regards as 'the strongest piece of internal evidence that could possibly be adduced to show that the author of the Aṣṭādhyāyī is not the author of the P.Dh.' is simply no such thing. It only shows that with the grammarians sometimes only it was what was said that mattered, and not how it was said.

The argument based upon the sautra roots also does not prove anything. For, excepting sporadic cases like that of $\sqrt{tu}$ the majority of them have continued, in all the later schools, to be sautra, in that they were never admitted into the dhātup. proper. Not only this, but their number has increased from seven in the Pāṇinian school[49] to forty-two in the Kkd.[50] It is claimed that the sacredness of the dhātup. prevented Pāṇini from admitting these roots to the dhātup. One may ask: What prevented the later grammarians, who were the authors of both the sūtrap. and the dhātup. from reading these roots into the dhātup.? The truth seems to be that certain roots, which were not quite full-fledged but occured only in sporadic forms were, on that account, not included in the dhātup., but were only mentioned in the sūtrap. when the operation concerned was taught.[51] The practice was followed by later dhātupāṭhas also. Consequently, the mere fact of sautra roots by itself does not prove the pre-Pāṇinian origin or the sacred nature of Pāṇini's dhātup.

One more point: PAWATE maintains that all the modifications that Pāṇini wanted to make in the dhātup. were effected through sūtrap. by framing new rules, for the dhātup. being upadeśa was something too sacred to be tampered with. Now, his own thesis is that Pāṇini got *both* the sūtrap. and the accessary works like dhātup. as upadeśa from his Ācāryas. Also, on PAWATE's own statement, Pāṇini has enlarged the original sūtrap. (which he got as his upadeśa) wherever necessary. Now, if Pāṇini could tamper with the sūtrap. which was not less sacred than the dhātup. what could have prevented him from making the necessary changes in the dhātup.? Anyway, it passes one's imagination why the dhātup. should have been more sacrosanct than the sūtrap. itself!

The whole trouble with the theory is that its starting point itself, viz., that Pāṇini's dhātup. was originally meant to be an independent collection of roots without being subordinate to any sūtrap. is not proved. True,

49. According to the M.Dh. (pp. 405-407) they are: *ṛt, stambh, stumbh, skambh, skumbh, sāt, ju.* The number is by no means fixed.

50. Kkd., St. 354-359.

51. As Vopadeva in his Kāvyakāmadhenu, commentary on the Kkd., says: *pṛthak pāṭhas tv eṣām niyataprayogaviṣayatvāt.*

there are often inconsistencies and imperfections in the dhātup. but that only shows, as has been already stated above, that a certain pattern of the dhātup. was already fixed before Pāṇini and that in spite of its imperfections Pāṇini retained it, even as his successors did to some extent, out of regard for the established practice.

Let us now turn once more to the rule *bhūvādayo dhātuvaḥ* which is already referred to above. The arrangement of roots in the first class in the P.Dh. is such that the block of roots in consonants comes first, and then follow the roots in vowels. The root *bhū*, which is found at the top of this dhātup. is, therefore, from this point of view, out of place here and should have properly been read somewhere between 945-1018 (the block of roots in vowels), preferably after 992.

Then why is it placed at the top ?

The commentators explain this by saying that, firstly, by taking the first position it performs the office of a *maṅgala* because it reminds one of the first *mahā-vyāhṛti 'bhū'* which has the same sound; and that, secondly, it deserves this position since its meaning, viz., 'existence' (*sāttā*), is at the basis of all the actions.[52] Whether one believes in the first reason or not, the second is certainly satisfactory. But we can even go further and infer that the practice of reading the root *bhū* at the beginning, and framing a suitable rule like *bhūvādayo dhātavaḥ* must have been older than Pāṇini. The root *bhū* must have, at a very early date, come to be regarded as the most representative root, denoting as it does the idea of 'being' which is at the basis of all actions. *bhū* is, so to say, the root par excellance. It is possible that the sentence *bhūvādayo dhātavaḥ* originally meant simply 'words of the type of *bhū* (i.e., those expressive of action or state) are roots'; that it subsequently came to be attached to a particular system of grammar when it underwent a slight change in the meaning and came to mean 'words listed with *bhū* at the top are roots'. Thus, along with the other reasons given by the commentators, the probable circumstance that Pāṇini has retained the older definition also might have been responsible for retaining the root at the top, though it is not in keeping with the arrangement of roots found in this Dhātup.

That the definition is quite older than Pāṇini is also indicated by the anomalous saṁdhi found in the word *bhūvādayo*, the regular word expected

52. *'ādau bhuvo nirdeśo bhūśabadasya mahāvyāhṛtismaraṇena māṅgalikatvāt, sarvajātyarthavyāpyarthābhidhāyitvāt.....'* M.Dh. p. 3. *'sattālakṣaṇasyārthasya sarvadhātvarthavyāpakatvena prādhānyād ..... ajantadhātuvargam ullaṅghyāpi bhavatim eva prathamaṁ nirdiśati'* Dh. Pr. pp. 2-5.

being *bhvādayo*.[53] This has given quite a headache to the scholars, both ancient and modern. At the same time, curiously enough, it has also come in handy to the commentators who have manipulated it to justify their own interpretations of this sūtra. The author of the Ślokavārttikas has explained the word bhūvādayo in three different ways, thus:[54] (1) *bhūvādayo* = *bhū* + *v* + *ādayo*, 'bhū and the following (verbs listed in the dhātup.)', the letter *v* being meant only for the sake of the maṅgala (in the middle of the work); (2) *bhūvādyō* = *bhū* + *vādayaḥ* (= *bhuvo vādayaḥ*) '(words) expressive (*vādayaḥ*) of action (*bhū*)'; here *bhū* is taken as an abstract noun in the sense of *bhavana* = *kriyā* and *vādi* an agent noun from √*vad* 'speak, express'. (3) *bhūvādayo* = *bhū* + *vā* + *ādayaḥ* '(verbs) beginning with *vā* and having the nature of *bhū* (i.e., which are expressive of action)'; here *ādi* is taken to be connected with both *bhū* and *vā*, meaning *prakāra* when going with *bhū*, and *vyavasthā* with *vā*.[55]

It is with the last interprteation that we are interested in at the moment, for it has given rise to a myth that there had probably been some dhātup., either an independent one or a version of the P. Dh. itself, which began with the *ad-* class, with √*vā* at its head. Though the part of the vārttika containing the last two interpretations does not appear in the Bhāṣya, these interpretations have found a place therein. Referring to this passage PAWATE remarks: 'It seems that the Pāṇinians themselves had their dhātupāṭha in more than one versions. The existing Dhatupatha begins with the root भू but Patanjali seems to speak of another version in which the अदादिs began with the root वा, that is in which the present अदादिs were वादिs, and in which the वादिs and not भ्वादिs were placed at the beginning of the Dhatupatha'.[56] Similarly K. C. CHATTERJI observes: "It is just possible that in some ancient Dhātupāṭha vā stood at the head of adādi roots

53. Cf. Bhāṣya under this rule: *kuto'yaṁ vakāraḥ? yadi tāvat saṁhitayā nirdeśaḥ kriyate, bhvādaya iti bhavitavyam; athāsaṁhitayā, bhūādaya iti bhavitavyam.*

54. *bhūvādīmāṁ vakāro'yaṁ maṅgalārthaḥ prayujyate*
bhuvo vārthaṁ vadantīti bhvarthā vā vādayaḥ smṛtāḥ.
The second line is not found in the Bhāṣya, but it is read in the Kāśikā

55. The second line is interpreted differently in the Nyāsa and also by CHATTERJI, *Technique* I, pp. 71-72. They appear to take the second line as containing only one alternative interpretation. But the following facts suggest that there are really two alternative interpretations: (1)There are two *vās* in the second line; (2) the second alternative naturally ends with the end of the 3rd quarter, the expression *bhūvādayaḥ* (and not *bhvarthā*, as Nyāsa understands it) being understood after it; and (3) the Bhāṣya also understands the last quarter as containing a third interpretation, since its explanation *vā ityevamādayo bhū ityevaṁprakārāḥ* (got by a double interpretation of the word *ādi*) is evidently a paraphrase of *vādayaḥ* and *bhvarthāḥ* in the Vārttika.

56. *Structure*, pp. 5-6.

and so some predecessors of Pāṇini framed the rule 'bhūvādayo dhātavaḥ' which was taken over by Pāṇini'.[57]

Let us see what the passage in the Bhāṣya really means. Kātyāyana points out certain difficulties which, he says, would follow if the nomenclature of dhātu were to be dependent only on the inclusion in the *pāṭha*. To obviate these difficulties it is proposed that the definition be changed to *kriyāvacano dhātuḥ*, or better, to make it applicable to all the roots (including those like *as* which do not denote any action), *bhāvavacano dhātuḥ*. But even these latter definitions are found to have their own defects and it is felt that the ideal definition should emphasize both the aspects, viz. (1) inclusion in the *pāṭha*, and (2) expressiveness of *kriyā* or *bhāva*. Patañjali then points out that it is not necessary to change the definition, and that the definition *bhūvādayo dhātavaḥ*, even as it is, brings out both these aspects equally well. He then proceeds to show how the term *bhūvādayaḥ* is to be differently interpreted according as the root is supposed to be a *kriyāvacana* or a *bhāvavacana*. 'If one accepts the view that a *bhāvavacana* is a root', he says 'then the word *ādi* going with *vā* means *vyavasthā*, and the other going with *bhū* means *prakāra*'. (*'yadā tu bhāvavacano dhātur ity eṣa pakṣas tadā vā ity atra ya ādiśabdaḥ sa vyavasthāyām, bhū ity atra ya ādiśabdaḥ sa prakāre. vā ityevamādayo bhū ityevaṁprakārā iti'*.) Here Patañjali simply seems to show how the dhātup. should be reshaped, so that it would serve the needs of this interpretation; viz., the *ad-* class should be placed at the beginning of the *dhātup.* and *vā* should be the leading root. Kaiyaṭa says so in so many words: *"adādīnām ādau 'vā gatigandhanayor' iti paṭhitavyam. adādigaṇo'pi gaṇānām ādau. tena sarve dhātupāṭhasaṁniviṣṭā gṛhītā bhavanti"*. The inference, therefore, that we have here a reference to some ancient dhātupāṭha in which the *ad-* class began with the root *vā*, or that there was such a version of the P. Dh. which is now lost seems little warranted.

There are two rules in the Aṣṭ., *ṣidbhidādibhyo'ṅ* (3, 3, 104) and *nandi-grahi-pacādibhyo lyuṇinyacaḥ* (3, 1, 134) which teach certain primary formations from the groups of roots mentioned therein. The peculiarity of these two rules is that though they lay down the operation with reference to gaṇas in the usual way, actually there are no such gaṇas in the dhātup., but the various primary nouns themselves are listed under these rules in the gaṇapāṭha (much in the manner of the *prātipadika*-gaṇas), the sūtrap. being supposed to refer to the roots from which these nouns are formed. PAWATE takes this as an additional proof for his theory that the P. Dh. had

57. *Technique*, Part I, p. 72.

another version which is lost, and holds that the lost version might have contained these gaṇas of roots. Now if we look at the words read in the *bhidādi*-gaṇa we will find that they come from roots which belong to more than one — in fact almost all — the Present classes. It is self-evident that a gaṇa can be formed only when the constituent roots (or, at least a sufficient number of them) belong to one and the same Present class. When, as in the present case (and also in that of gaṇas mentioned in 3, 1, 134) roots concerned are spread over a number of Present-classes it is physically impossible to form the gaṇas. Being thus unable to use the usual method, the author had to take recourse to some other one. The absence of these gaṇas in the dhātup. is to be thus explained on the ground of their sheer impossibility, and it cannot suggest any lost version of the dhātupāṭha with these gaṇas, which, as just said, is impossible as long as the present arrangement of the dhātup. on the basis of the Present-stem is not altered.

But the whole idea of the *vādi*-version of the dhātup. is based on what is only a doubtful and alternative interpretation of the expression *bhūvādayaḥ*. This interpretation, along with the second, has to be set aside as being forced, their avowed object being to show that this definition includes both the necessary aspects mentioned above. As in the case of similar definitions like *sarvādīni sarvanāmāni* (P. 1, 1, 27), *prādayaḥ* (1, 4, 58) etc. *bhūvādayaḥ* is to be naturally split into *bhū* + *ādayaḥ*, meaning that the vocables listed with *bhū* at their head are called roots, it being automatically understood that they are called roots only when they express an action: so that words spelt identically but having a different meaning do not get the name of root. The first interpretation, alone, is therefore acceptable. We need not however accept that the letter *v* is for the sake of the maṅgala. Indeed it is not clear how the beginning of the third chapter of the book I can be regarded as the middle of the work requiring maṅgala: nor is it easy to see how the letter *v* is capable of performing that function (say, like the word *atha*), this character of this sound not being known anywhere else. Nor need we suppose that Pāṇini here 'merely names two important roots — one of the first conjugation (i.e. *bhū*) and one of the second (i.e. *vā*), and says that roots are of the nature of these.'[58] As in the parallel cases of *sarvādīni, prādayaḥ* etc. mentioned above, it is reasonable to suppose that only one instance is mentioned here, there being no apparent reason why Pāṇini should have made this a special case and have given two instances. It just seems that *bhūvādayaḥ* is archaic for *bhvādayaḥ*. Semivowels are known to appear after *i, u* when dissimilar vowels follow in the earlier

58. CHATTERJI, *Technique*, Part I, p. 71.

stage of the language.[59] This shows that Pāṇini has made use of the definition which was coined long before him and had already established itself. And since he retained the old definition he had also to place √*bhū* at the head of the *dhātup.* even though it was not in keeping with the general arrangement of roots.

59. TS, e.g. invariably writes *suvar* for *svar*; the form *triyambaka* is met with in the Baudh. Gr. Sū. III, 12 and is also imitated by Kālidāsa (Kumāra. III, 44). The grammarians call this phenomenon *yaṇvyavadhāna* and is referred by J 1, 2, 1; Śā. 1, 4, 73 etc. H (Bṛhadvṛtti to 1, 2, 21) actually mentions the instance of *bhūvādayaḥ*. See also Wh. *Gram.* 129c; and (particularly) Yudh. Mīm., *Itihāsa,* I, pp. 21-23, Bohtlingk, *Acht Bücher,* p. 51, favours the view that here *bhūvādayaḥ* is deliberately used to hint at the sporadic occurrence of semi-vowels between *i u* on the one hand and dissimilar vowels on the other—since the phenomenon is not expressly taught in the Aṣṭ. He proposes an alternative explanation also, viz. that *bhūvādi* stands for *all* the roots, while *bhvādi* stands only for the roots of the first or the *bhū* class. But neither the expression *bhvādi* nor *bhūvādi* appears anywhere else in the Aṣṭ. which would confirm this distinction; and Bohtlingk himself does not much favour this interpretation.

CHAPTER II

A BRIEF ACCOUNT OF THE DIFFERENT DHĀTUPĀṬHAS

II

A BRIEF ACCOUNT OF THE DIFFERENT DHĀTUPĀṬHAS *

Pāṇinīya Dhātupāṭha[1]

This is the oldest dhātup, that has come down to us. The pattern which was once fixed here by Pāṇini is mostly followed by his successors. It is therefore necessary to study this dhātup. in some detail.[2]

Every root is given along with its meaning, these two forming one sentence, which is usually called a dhātusūtra. Generally only one meaning is assigned to a root and is given in the form of an action noun in the locative case;[3] sometimes, however, it is given in the form of a bahuvrīhi compound with *-artha* as the second member, e.g. *gatyartha, śabdārtha* etc., this later method being preferred when there are many roots against one meaning. The root is, further, accompanied by one or more anubandhas or the code letters indicating certain features of the root.

Coming to the classification of roots, it is seen that they are read in ten major groups or classes (called gaṇas), the basis of the classification being the manner in which the roots form their Present stem. That the grammarians chose this as the basis of classification is very natural because 'the present system is the most prominent and important part of the whole conjugation, since, from the earliest period of the language its forms are much more frequent than those of all the other systems together'.[4]

* Part of a study submitted to and accepted by the University of Poona for the degree of Ph.D. in 1957.

1. Published many times as an appendix to the *Siddhāntakaumudī*. In Europe it was published by WESTERGAARD as an appendix to his *Radices Linguae Sanscritae*, Bonn, 1841; by BOHTLINGK in the second edition of his *Pāṇini's Grammatik* (1887); and by Bruno LIEBICH in Zur *Einführung in die indische einheimische Sprachwissenschaft* III. References in this paper are to BOHTLINGK's edition, the numbering in which is also kept unchanged by LIEBICH in his 'der Dhātupāṭha' (*Einführung* III) and *Kṣīrataraṅgiṇī*.

2. For an excellent study of the P.Dh., see LIEBICH, *Einführung* III.

3. e.g. *bhū sattāyām. edha vṛddhau. spardha saṁgharṣe* (P. Dh. 1-3) etc.

4. WHITNEY, *Grammar* 600.

The sequence of these classes (which apparently does not follow any logical principle) is this:

1. *bhu*-class with *śap* = an unaccented *a* as the vikaraṇa (characteristic class-sign), e.g. *bháv-a-ti*.
2. *ad*- class marked by an elision (*luk*) of *śap*, i.e. by an absence of any stem-building suffix (i.e. the root class).
3. *hu*- class with the vikaraṇa *ślu*, i.e. the class marked by a similar absence of any stem-building suffix, and having a reduplication of the root (i.e. the reduplicating class).
4. *div*- class whose vikaraṇa is *ya* (śyan).[5]
5. *su*- class whose vikaraṇa is *nu* (śnu).
6. *tud*- class whose vikaraṇa is an accented *á* (śa).
7. *rudh*- class marked with an infix *na* (*śnam*, which is reduced to mere *n* in weak forms).
8. *tan*- class *u* as the vikaraṇa.
9. *krī* class with the vikaraṇa *nā* (*śnā* modified into *nī* or *n* in the weak forms).
10. *cur*- class with its characteristic *i* (*ṇic*, which with the following *śap* combines into *áya*).

Within these classes, further, are the *antargaṇas* or the sub-classes which are formed of roots which undergo a common operation (as e.g. the *ghaṭ*- sub-class, roots in which do not lengthen their root-vowel *a* while forming the causative stem).

Coming to the arrangement of roots within the classes we may notice certain points here. The first or the *bhū*- class begins with a big group (roots 1 — 776) of normal roots ending in consonants.[6] These roots are either parasmaipadin or ātmanepadin,[7] and do not belong to any sub-class. They are, further, mostly marked with an udātta root-syllable, indicating that they take the connecting-vowel *i* before what are called the ārdhadhātuka suffixes.[8] Within this group the roots are arranged according to the final

5. In the Pāṇinian system *śap* is taught as a general vikaraṇa while the vikaraṇas for classes IV-IX, viz. *śyan, śnu, śa, śnam, u* and *śnā*, are said to be apavāda of *śap*- i.e. they supersede *śap*.

6. There are three exceptions: *bhū* (1), *kṣi* (255) and *ji* (593).

7. Except *al* (548) and *dhāv* (632) which are ubhayapadin.

8. Except *kṣi* (255), *tip* (385) and *ji* (593). As regards √*tip*, Kṣ. does not positively say that it is anudātta. He singles out the form *teptā* and justifies it on the maxim '*gaṇakṛtyam anityam*'. On this Bhaṭṭoji remarks: *Kṣīrasvāmī tv ayaṁ seḍ iti babhrāma* (SK under P. Dh. I, 385).

consonant. A peculiarity of the sequence of these groups is that the dental group comes first (i.e. after the first root *bhū*) instead of the guttural as expected. After the dental group, the sequence is quite normal, viz. the guttural, the palatal, the cerebral and the labial. The roots ending in nasals are not read in their respective groups but form a separate group which comes after the labial group. Then follow the two groups of the roots ending in semi-vowels and those ending in the sibilants and *h*. Each of these eight groups is further divided into two groups, the one being of the ātmanepadins, which, by the way, always comes first, and the other of the parasmaipadins which follows it.

The roots which represent the normal type extend so far. From here onwards are given roots which have some peculiar characteristic in common, and which therefore have been grouped together. The first big group (777-913) consists of four antargaṇas viz. the *dyut* (777-799, with its further sub-class the *vṛt* (795-799)), the *ghaṭ* (800-873, including the sūtra-like passages 862-872 which properly belong to the sūtrapāṭha), the *phaṇ*[9] (873-883), and lastly the *jval* (884-913). The *dyut-* class consists of roots which are normally Ātmanepadins but become optionally Parasmaipadins in the Aorist (P. 1,3,91), which stem they form with *aṅ* (i.e. a weak *a*) (P. 3,1,55). The *vṛt-* sub-class takes the Parasmaipada endings optionally in the *sya-* future, conditional, and desiderative (P. 1,3,92). The *ghaṭ-* class of roots is technically called *mit;* it retains its short radical vowel in the causative stem (P. 6,4,92), but lengthens the same optionally before *ciṇ,* i.e. the *i* of the 3 sing. Aor. (Ātm.), and *ṇamul* i.e. gerundive in *am* (P. 6,4,93). The *phaṇādi* roots optionally contract, in the weak forms of the Perfect, the reduplication and the root to a single syllable with medial *e* (P. 6,4,125). The *jval-* class of roots from an agent noun with *-a* (*na*) (P. 3,1,140). In this formation, they show a double form, one with a strengthened root-vowel, and the other with the same unaltered. In the former case roots with *a* lengthen it while those with *u* gunate it.[10] Here also most of the roots are such as end in a consonant. Similarly the above two principles as regards the order, viz. the dental coming first and the ātmanepadins getting the precedence are generally observed here.

9. *phaṇ* belongs to both the *ghaṭ* and *phaṇ* sub-classes.

10. Roots listed in the *jval*-class have either *a* or *u* as the penultimate vowel (23 with *a*, 7 with *u*). Those with *a* undergo *vṛddhi* when *ṇa* follows (P 7, 2, 116); optionally they take *ac* (the *pacādyac*), in which case the root-vowel remains constant. Those with *u* undergo guṇa when *ṇa* follows (P 7,3,84); optionally they take *ka* (P 3,1,135), in which case the root-vowel remains unaltered (P 1,1,5).

The roots so far seen were either Parasmaipadins or Ātmanepadins. With *hikk* (914) begin the ubhayapadin roots (914-950), those in consonants coming first and extending up to *guh* (944).

With *śri* (945) starts the section of the roots in vowels, first the Ubhayapadins (945-950), then the Parasmaipadins (951-994) and lastly the Ātmanepadins (995-1017), followed by a solitary parasmaipadin root *tṝ* (1018). Within these groups the *aniṭ* and the *seṭ* roots are read separately. Then comes the last group, mostly of the aniṭ roots in consonants (1019-1059), of which 1019-1026 are Ātmanepadins, 1027-1042 are Parasmaipadins while the remaining (except 1054 and the last two, which are parasmaipadins) are all ubhayapadins. With 1051 begins the *yaj-* sub-class (1051-1059), roots in which are characterized by saṁprasāraṇa before weak suffixes (P. 6, 1, 15).

The first or the *bhū-* class is the largest of all the classes, containing as it does as many as 1059 roots, which is more than half of the total number of roots.

In the second or the *ad-* class also the general group of roots comes first (1-57), the group of roots constituting sub-classes coming afterwards (58-72). There are two sub-classes, the *rud* (58-62) and the *jakṣ* (62-68). Roots from *svap* (59) onwards form, at the same time, another sub-class, the *svap-* class[11] (P. 6,1,188). The *rudādi* roots are characterized by an insertion of various union-vowels (i in some forms: ī and a in others) before strong consonantal Sārvadhātuka endings (P. 7,2,76; 7,5,98-99), while the *svapādis* take the accent optionally on the radical vowel or on the suffix in certain weak forms of the Present-system (P. 6,1,188). The roots forming the *jakṣ-* class stand out from the rest by the fact that they behave much in the same way as the roots of the reduplicating class (P. 6, 1, 6). As regards the arrangement of roots in classes II — IX, roots are generally given in homogeneous groups, the basis of groups being the same viz. the admission

11. The *svap-* class apparently extends up to the end of the *ad-class.* Thus commenting on P 6,1,188 Kāśikā remarks: *svapādir ā vṛtkaraṇāt.* That by *vṛt* we are to understand *vṛt* coming at the end of the *ad*-class, and not *vṛt* coming after *jakṣ* (62) (which marks the end of the *rud*-class) is made clear by Tb which says: *'adādyantargaṇa iti', ā gaṇāntād iti bhāvaḥ.* Kṣ. also says after the final vṛt: *svapādayaḥ svarārthaṁ varitāḥ.* (Liebich apparently regards the text here as sic, since he comments in the footnote (1) 'so alle Hss.') Vop. also furnishes all the remaining roots from *svap* onwards (except the suspiciously situated √*hnu*) with the anubandha *lu* (which in Kkd. indicates the *svap-* class. Nyāsa, however, remarks: *'svapādir ā vṛtkaraṇād'* iti. *yady apy etad evaṁ tathāpi 'ñiṣvap śaye' 'śvasa prāṇane' 'ana ca' ity eta eva ye ta iha svapādigrahaṇena gṛhyante. pare'pi ye jakṣityādayo' bhyastasaṁjñās, teṣu paratvād 'abhyastānām ādir'* (6,1,189) *ity anena nityam ādyudāttatvaṁ bhavati*—By the way, neither of the two vṛts is read in the M.Dh. and by Liebich.

or the absence of the union-vowel i, the voice, and the ending sound.[12] As regards the sequence of these groups, the principle which seems to have guided it can best be described as 'associative digression' — to borrow a term applied by FADDEGGON with reference to the arrangement of sūtras in the *Aṣṭādhyāyī*. In other words, each succeeding group, while differing from the preceding one in some respect, has at the same time something common with it which links the two groups. Thus, the group 3-6 in this class is anudātta like 1-2, but svaritet unlike it; 7 is anudātta like 3-6 but anudāttet unlike it; 8-20 is anudāttet like 7, but udātta unlike it and so on.

Two points are worth noticing in the *ad-* class. One is the occurrence of the sūtra *carkarītaṁ ca* (71). *carkarīta* is the older term for Pāṇini's *yaṅluganta* and already occurs in the Nirukta (e.g. II 28). The second is that the last root, viz. *hnu* (72) seems quite out of place there, since its proper place is near the root *ī* (37) and certainly not after *carkarītaṁ ca* which should be the natural end of the class II.[13] Perhaps the idea is to make it belong to the *svap* sub-class, but this character of the root is questionable.[14]

In the third or the *hu-* class there is a sub-class of roots (14-25) which are restricted to the Vedic use by the sūtra *chandasi*.[15]

In the fourth or the *div-* class, there are two sub-classes, *sū* (24-32) and *puṣ* (73-136).[16] Within the *puṣ-* class, further, are the following two sub-classes: *radh* (84-91) and *śam* (92-99).

The roots of the *sū-* class are declared to have the anubandha *o* (*svādaya oditaḥ*), which indicates that these roots form the ppl. with *-na* (P 8,2,45). Such of the roots of the fourth class as form the active Aorist-stem with *-ạ* (*aṅ*) are grouped to form the *puṣ-* class (P. 3,1,55). The *radh-* class comprises veṭ roots (P. 7,2,45). Four roots from this *radh-* class, viz. *druh* etc. (88-91) form the subject-matter of P. 8,2,33 where all these four

12. This last one, however, is not so marked (except perhaps in cl. VI) as in cl. I.

13. Of course, strictly speaking, *carkarītaṁ ca* belongs better to the sūtrap. than to the dhātup.

14. See foot-note 11 above.

15. According to Maitreya (Dh. Pr. p. 88), however, the gaṇasūtra refers to only the last two roots, *jan* (24) and *gā* (25).

16. Kṣ. refers to a view according to which the *puṣ*-class ends with √*snih* (98). After commenting on *sniha prītau* he remarks: *etadantaḥ puṣādir ity eke, ato'gre aśamīt, atamīt, adamīt, aśramīt, abhramīt, akṣamīt, aloṭīt, akleḍīt, akopīt, aharṣīd ityādy udājahruḥ* (p. 133).

roots are repeated instead of forming an antargaṇa of these. On this Maitreya (P. 97) remarks: *vā druhādīnām iti gaṇanirdeśo na kriyate. vaicitryārtham ity eke; yaṅluganivṛttyartham ity apare.* The peculiarity of the *śam-* class (in which, incidentally, all the roots except one, viz. *mad,* end in m) is that these roots lengthen their radical a in the Present -stem (P. 7,3,74); also these roots form agent nouns with *-in (ghinuṇ)*[17] (P. 3,2,141).

A peculiarity of the many of the ātmanepadin roots in this class is that they are rather passive or reflexive stems, the same roots with a distinct active meaning appearing as parasmaipadin roots in other classes.[18]

In the fifth or the *su-* class also is a group of roots (26-34) which are stated to be peculiar to the language of the Veda.

The sixth or the *tud-* class has three sub-classes: the *kuṭ* (73-108), the *kṝ* (116-120), and the *muc* (134-143). The speciality of the *kuṭ-* class is that these roots do not undergo any strengthening—unless the following suffix happens to be such as generally causes vṛddhi (a *ñit* or *ṇit* suffix) (P 1, 2, 1). It is interesting to note that out of the 31 consonantal roots belonging to this sub-class, no less than 21 end in cerebrals (*ṭ* or *ḍ*.) Historically these are the cases of roots extended with *-t,* this sound being generally cerebralised by a preceding cerebral. The roots grouped in the *kṝ-* class take the union vowel *i* in the desiderative (P 7, 2, 75). The roots taking a nasal increment in the Present-stem are grouped in the muc- class (P 7, 1, 59).[19]

17. Candra thinks this rule unnecessary and derives the forms like *śamin* from the nouns *śama* etc. with the possessive suffix *in. Cf. śamādibhyo ghinuṇ na vaktavyaḥ, śamo'syāstīti śami* .... (Vṛtti to C 1,2.96).

18. Cf. *dū* IV, 25: *du* V, 10; *mī* IV, 29: *mī* IX, 4; *prī* IV, 36; *prī* IX, 2 etc.

19. There are a few other roots (about half a dozen or so) in the same *tud-* class, √*tṛmph* (VI, 25) and others (called the *tṛmphādi* roots) which also according to the Vārttika 1 to P 7,1,59 similarly take a nasal infix in the Present-stem. They have been read in a double form, one with the nasal and the other without it (*tṛph-tṛmph, tupa-tump* etc.,), those with the nasals being understood by the term *tṛmphādi.* An additional nasal is taught in their case by the Vārttika, evidently because the original was believed ti be dropped by the rule *aniditām* etc. (P 6,4,24). It is clear that no regular antargaṇa is intended here, the simple reason being that these roots are not read consecutively, but have been separated from one another by their own nasal-less counterparts. For the same reason the word *ādi* in *tṛmphādi* is unanimously explained as meaning *prakāra = sādṛśya* (consisting of containing a nasal penultimate), and not *vyavasthā* as usual. The Dh Pr.'s reading *vṛt* (p. 108) after these roots is, therefore, superfluous if not unwarranted. Incidentally, an interesting question arises here: If the *tṛmphādis* share this feature with the *mucādis,* why did not Pāṇini read the *tṛmphādis* in the *mucādis* themselves? Kaiyaṭa's explanation that this would have resulted into a repetition of the meanings is unconvincing since, as he has himself

As in the first class, in the sixth class also roots have been arranged, as far as possible, according to the final sound of the root. Thus roots 9-21 all end in palatals; 22-34 in labials; 35-36 in dentals; 37-39 (besides those in the *kuṭ-* class mentioned above) in cerebrals; 40-49 in nasals (mostly *ṇ*), many of these, by the way, are transfers from the ninth or the krī-class; 50-56 in *r;* 57-58 in *h;* 59-60 in *ṣ;* and, lastly, 61-71 in *l.* The sequence of these groups is neither the regular one nor does it correspond closely to that in the first class.

There are no peculiarities worth mentioning in the seventh class.

In the eighth or the *tan-* class, all the roots (except *kṛ*) end in *n,* are characterized by the anubandha *u,* and are seṭ.

In the ninth or the *krī-* class, roots 13-32 form a group, called the *lū-* group which, like the *sū-* group in the *div-* class, forms its ppl. with *-na* (P 8, 2, 44), and similarly also forms an action noun in *-ni* (P 8, 2, 44 Vā. 1).[20] These same roots along with the preceding one, i.e. *pūñ pavane* (IX, 12) also display another feature, viz. they shorten the root-vowel in

elsewhere pointed out, the assignment of meanings is post-Pāṇinian. Besides Bhāṣya itself admits: *yadi punar ime mucādiṣu paṭhyeran? na doṣaḥ syāt* (Vol. III, p. 262). Secondly, what was the position of the *tṛmphādis* vis-à-vis P 6,4,24 before Kātyāyana framed his above Vārttika? Was the rule intended to apply to these roots also, or was it not? If it was, then the resultant forms in the Present system would be *tṛphati* etc. (i.e. the same as those from their nasal-less counterparts), which is evidently not desired. We have therefore to suppose that Pāṇini did not intend to apply the rule to those roots and relied either on the *pāṭhasāmarthya,* or on the sound judgment of the students. Kātyāyana seems to have interpreted the rule more in letter than in spirit and he only made explicit what was implicit. In the Cāndra grammar, where all other conditions are the same, there is no rule corresponding to the above Vārttika, the position being made clear by the Vṛtti (to C V,4,11) thus: *kathaṁ tṛpati tṛmpati, dṛpati dṛmpati? dhātuṣv eva hi dvidhāpāṭhāt.* (p. 402). Among the later writers H teaches the nasal infix to both the *mucādis* and *tṛph* (not *tṛmph*) etc. in one and the same rule (H 4,4,99), while Vop. actually amalgamates the *mucādis* and the *tṛphādis* (like H,) in one class, indicated by the anubandha *p*—In this connection see also present writer's paper *'tṛpha-tṛmphādīnāṁ vimarśaḥ',* Bulletin of the Deccan College, Taraporewalla Vol. (XVIII).

20. There is some confusion in the sequence of the last three or four roots in this group. Commenting on P 8,2,44 the Kāś. remarks: *lūñ chedane ity etatprabhṛti vṝ varaṇe iti yāvat vṛtkaraṇena samāpitā lvādayo gṛhyante.* Actually there is no *vṛt* after *vṝ varaṇe* (IX, 20) where the group has not run even half its length. Kṣ. terminates the group with *lī śleṣaṇe,* M with *plī ca* (i.e. *śleṣaṇe*), and S with *plī gatau.* Probably the correct reading of the Kāś. is *vrī varaṇe* (IX, 33), but even then no comm. has included that root in the *lvādi* roots. Under P 7,3,80, however, the Kāś. says that the *lvādi* roots extend up to *vlī gatau.*

the Present-stem (P 7, 3, 80). They are, therefore, also called the *pū*-group.[21]

In this class the arrangement or roots is clear-cut; roots 1-36; 38 end in vowels (1-17 ubhayapadins, 18-36 parasmaipadins, and 38 ātmanepadin); 37, 39-61 in consonants,[22] all (except *grah* which is ubhayapadin) parasmaipadins.

We now pass on to the tenth or the cur-class, the last one, which differs from the first nine in a number of ways. Thus in the first nine classes Pāṇini has made use of the accents for certain purposes. If a root ending in consonant is read with an anudātta accent on the anubandha syllable it is to be understood as being ātmanepadin while if the anubandha syllable has a svarita accent it is ubhayapadin (for roots ending in vowels code letters ṅ and ñ are used respectively for this purpose). Similarly, in the same classes, an aniṭ root is indicated by an anudātta accent, and a set by an udātta on the root-syllable. This two-fold accentuation is discontinued in the tenth class as being unnecessary. The ātmanepadin roots are arranged in two groups (135-171 and 350-359) and are lebelled accordingly so that all the rest are to be regarded as parasmaipadin[23] (cf. P 1, 3, 78). Similarly, as a root in this class will already have *ṇic* added to it when an ārdhadhātuka suffix follows, it ceases to be monosyllabic (*ekāc*) and consequently the prohibition of the union-vowel *i* laid down in P 7, 2, 10 does not apply to it. In other words, the roots in the tenth class are all seṭ.

An important respect in which this *ṇic* differs from suffixes forming the present stem is that it appears not only in the present-system but also in others and is consequently regarded as an integral part of the root (P 3, 1, 12). Also, it does not supplant *śap*, but comes side by side with it.

21. There is difference of view as regards the final limit of the pū-class. Some end it with IX, 32 as said above, while others extend it to the end of the ninth class itself. Both the views are stated by the Kāś. (under P 7,3,80), M (p. 127), S (p. 370) etc. Kṣ. however does not mention the later view.

22. One almost feels like transposing roots 37 and 38, so that the division becomes quite perfect:

23. Except those like *lakṣ* (X, 5) which are regarded as *svaritet*. But there is a difference of opinion among the ancient grammarians themselves as to whether the rule *ṇicaś ca* (P 1.3.74) applies to the causative suffix *ṇic* only, or to the *ṇic* of the *cur*-class as well. Some grammarians like Śāyaṇa and Bhaṭṭoji give both the forms, e.g. *corayati* and *corayate* while others like Kṣ taking their clue from the svarita anubandha syllable of the root *lakṣ* (X, 5) restrict the operation of the rule only to the causative bases and in the case of the roots *cur* etc. give only a parasmaipadin form, *corayati* etc. Liebich follows Sāyaṇa, *Einführung* III, 25.

In this class roots 1-208 form a block of normal roots within which is a sub-class—named *ākusmīya*—of ātmanepadin roots (135-171). Why it is inserted within the block which is non-ātmanepadin, and not given separately is not clear.[24] Roots 209-263 form a group *āsvadīya*. These roots, according to one interpretation, belong to the cur-class only when they are used transitively. Then the following group (264-306)—the *ādhṛṣīya* group—is characterized by the fact that the roots read here take this conjugation only optionally, i.e. optionally they belong to the general i.e. bhū- class also.[25] Out of these roots in this group there are some half a dozen roots[26] which, according to some[27] have a svarita anubandha-syllable. But these roots being, according to them, already ubhayapadin on account of the *ṇic* added to them, the result of this svarita-vowel is declared to be transferred to the same roots in their conjugation according to the first class, where also they are read. They thus get the benefit and become ubhayapadins. Three roots in vowels, viz. *dhū*, *prī* and *vṛ* are furnished with the anubandha *ñ* for the same purpose.

24. Maitreyarakṣita (Dh. Pr. p. 140) states that the remaining roots (172-208) following this ātmanepadin group belong to the cur-class optionally and illustrates them by *carcayati—carcati, bukkayati—bukkati* etc. But in that case they could have been included in the *ādhṛṣīya* group (264-306) which is specially meant for such roots.

25. Liebich *Einführung* III, 63 understands the option differently. He thinks that besides the conjugation according to the tenth class, the roots are also conjugated according to various other classes in which also the roots have been read, either with the same or with a different meaning. His illustrations are *yunakti* beside *yojayati*, and *dhṛṣṇoti* beside *dharṣayati*. It is quite probable that historically forms like *yojayati* and *dharṣayati* came to be more and more popularly used along with the original *yunakti* and *dhṛṣṇoti* and to that extent Liebich may be right. But as far as the interpretation of the rule *ā dhṛṣād vā* is concerned he is against the tradition since all the commentators unanimously give the conjugation according to the first-class as the optional: *yojati, parcati arcati, sahati, īrati* etc. Kṣ. expressly says: *pakṣe nyāyyo vikaraṇaḥ śap* (p. 187). It is evident that technically the commentators' interpretation is correct, for *śap* and *ṇic* come independent of each other, and both of them appear side by side in the concrete forms. Consequently, even when *ṇic* does not appear *śap* continues to remain, there being nothing to oust it. Secondly, if the idea were merely to assign these roots optionally to the various other classes then the rule *ā dhṛṣād vā* would be superfluous, the intended option being already secured by the fact that the roots have been actually read in those other classes also.

26. Viz. *ard* (285), *śundh* (289, acc. to some), *chad* (290), *āp* (295, acc. to some), *vad* (297, acc. to some) and *mṛṣ* (305). Liebich reads *dhṛṣ* (306) also with a svarita anubandha-vowel, but I do not find any support for it in the ancient authorities.

27. Maitreya, Sāyaṇa etc. Kṣ. does not read them with the svarita anubandha.

Roots from *katha* (307) to the end of the class are regarded as ending in *a*, i.e. the final *a* of these roots is neither an anubandha, nor is it meant for the mere facility of pronunciation, but is an integral part of the root. The purpose of this *a* is to explain, *inter alia*, the absence of guṇa or vṛddhi in the root syllable.

Here also there is a group of ātmanepadin roots (350-359).

Many of these *adanta* roots are apparently denominatives, as indicated in the sūtra '*prātipadikād dhātvarthe bahulam iṣṭhavac ca* (368). The roots that follow are therefore merely meant to be a few instances of such denominative use. Some of these, again, occur expressly in the denominatives mentioned by Pāṇini in the sūtrap (3,1,21.25). This last section is thus closely connected with the third Adhyāya of the Aṣṭādhyāyī which, besides giving lists of denominative verbs, commences the treatment of the verbal and primary suffixes, and is thus in a way the beginning of the main part of the Aṣṭādhyāyī.[28]

The type that was once fixed by Pāṇini has been followed by the authors of the later dhātupāṭhas. There might be changes here and there in the arrangement of roots or in other matters but the main pattern remains the same. In reviewing the dhātupāṭhas we shall therefore touch on only those points where they differ from the Pāṇinian Dhātup.

The so-called Śarvavarman's original dhātupāṭha

After Pāṇini the next school of Sanskrit grammar is the Kātantra of Śarvavarman. The dhātup. that has traditionally come down as belonging to the Kt. school is not really the work of Śarvavarman, the founder of the Kt. school. It is Durga who prepared it for that school on the basis of the Cāndra dhātup. We shall study it at its proper chronological place. Śarvavarman, as we shall later see, did not, in all probability, write any dhātup. Liebich, however, has published as Anhang II to his ed. of the Kṣīrataraṅgiṇī a dhātup. called Kalāpadhātu-sūtra, reproduced from Tibetan sources which he believes to be the original dhātup. composed by Śarvavarman himself.[29]

This dhātup. gives roots with the meanings in Tibetan translation[30] (in Roman transcription) which are the same as those given by Bhīmasena. There are the same ten classes with the same sequence.

28. Liebich, *Einführung* III, 65.

29. In this respect modern scholars generally follow Liebich, Belvalkar, *Systems*, p. 90; Winternitz, *Geschichte*, Vol. III, p. 398; Keith, *A History of Sanskrit Literature*, p. 431; Yudhiṣṭhira Mimansaka, *Itihāsa* I, p. 407.

30. The name of the translator is given as Mañjughoṣa-Khaḍga.

Coming to the individual classes, classes I and X show considerable difference with those in the P.Dh. Thus in the class I there are only 214[31] roots as against 1050 of P. A strange feature of the arrangement of roots in this class is the complete absence of any order in it. All sorts of roots, seṭ and aniṭ, vocalics and consonantals and roots conjugated in different voices have been thrown together. The Anubandhas *ṅ* and *ñ* appear, indicating respectively the ātmanepadin and the ubhayapadin roots ending in vowels, but there is no indication whatsoever as to the voice in which a root ending in a consonant is conjugated as, apart from the absence of Anubandhas, the usual statements (viz. such and such roots are parasmaipadins....etc.) also are conspicuous by their absence. Ten roots[32] appear twice, and one, viz. *bhū* even thrice (1, 17, 148). On the other hand it is very curious that out of the 74 roots in the *ghaṭ-* sub-class only one, viz. the first root *ghaṭ* appears here. Then the antarganas are not given separately though a few roots forming these are read here.

Similarly in the X class, *yuj* and *katha* sub-classes consist of 9 and 26 roots respectively as against 46 and 86 respectively of P.

In classes II—IX certain points are worth noticing. Some roots which have been read by P in the *bhū-* class follow optionally, necessarily, or under certain circumstances, different conjugation. Such roots have been removed to their proper classes. Thus the roots *śru, akṣ* and *takṣ* (also *tvakṣ*)[33] have been read in the fifth or the *su-* class; roots *dhinv* and *kṛṇv* (also *inv* and *jinv*)[33] are read in the eighth or the *tan*-class; the sautra roots *stambh, stumbh, skambh* and *skumbh* are read in the ninth or the *krī-*class; and lastly the sūtra *'vā bhrāśa-bhlāśa-'* etc. which enumerates the roots belonging to the *div-* class optionally, and which is read in the sūtra-pāṭha by other schools is read here in the Dhātupāṭha, and that too twice (IV, 9-15; 147-154).

Another important point to note is that the vikaraṇas as mentioned here at the end of each class, correspond, not to those given by Śarvavarman in the sūtrapāṭha (*yan, nu, an* etc.), but to those which are found in the Pāṇinian system (*śyan, śnu, śa* etc.).

There are some minor mistakes committed by the Tibetan translator. He has made a confusion between *'asana'* and *'aśana'*. Twice, he has mis-

31. And even this figure includes double occurrences of some roots.

32. *glai* (28.29), *vad* (35.147), *path* (37.144), *haṭh* (57.143), *bhraṁś* (76.121.), *dhvaṁs* (77.122), *srambh* (78.123), *daṁś* (79.124), *sañj* (80.125), and *srp* (105.141).

33. Unlike P.

taken meanings for roots; thus, *rujā* which is a part of the meaning *rujā-viśaraṇa-gatyavasādaneṣu* assigned to the root *śaṭ* is torn off and given as a separate root along with *śaṭ* (Śa. Dh. I, 173), the meaning *viśaraṇa-* going with both.[34] Further, as though this were not enough, *avasādana* 'dis-hearten', is split into *avasa* 'not living' and *adana* 'eating'! Similarly *vraṇa gātracūrṇane* is given as *vraṇa gātra cūrṇane* (X, 262). On the other hand the sūtra *basta gandha ardane* (P. Dh. X, 144.145) is read as *basta gandhā-dane* (X, 122) (i.e. *gandha* is taken as a part of the meaning). In the X class he reads *yūj* (215) and *bīcch* (203) along-side *yuj* and *bicch*. A peculiar addition is that of an ātmanepadin root *kṣī* (32) in the IV class, whereas *kṣī* is only a passive or reflexive stem from the root kṣī.

Roots peculiar to the Veda are not read in this dhātup. except √ṛ (III. 14).

An Examination of the so-called Śarvavarman's Dhātupāṭha

Now let us examine the above dhātup. and see how far the claim that it represents the original Dhātup. of Śarvavarman is tenable. At the outset we note that Śarvavarman is nowhere specifically mentioned as the author of this work. The work is only styled as 'Kalāpadhātusūtra'.[35] So all that this may mean is that this dhātup. was believed by some as belonging to the Kātantra or the Kalāpa system at some stage in its history. It does not follow that this is *the* original dhātup. of the system.

Secondly, the set of vikaraṇas of the ten classes as given at the end of each class strongly militates against the claim of this dhātup. having come from the pen of the originator of the Kātantra system. The vikaraṇas are all (with the sole exception of that of the first class, which is a doubtful case and to which we shall shortly return) the same as belonging to the Pāṇinian system, and not those as are stated by Śarvavarman in the Kātantra Sūtrapāṭha. Thus *śyan, śnu, śa, śna* and *śnā-* vikaraṇas of classes IV-VII and IX—are furnished with the Anubandha *ś*. But what purpose does it serve here? In the Pāṇinian system it has a definite purpose. A verbal

34. Curiously enough, the same mistake is found in the Kāśakṛtsna Dh. (I.87) also.

35. As opposed to this the current dhātup. of the Kātantra school is distinctly ascribed to Śarvavarman. Cf. the initial stanza:

dhātupāṭhaḥ kṛto yena kātantrasyārthasiddhyaye/
tasmai svasty astu viduṣe satataṁ śarvavarmaṇe//

How far such statements are to be relied upon is a different thing. Of the 3 Mss. I have used, only the Devanāgarī Ms. of the BORI reads the stanza. The two Bengali Mss. of the India Office Library do not read it.

suffix which is *śit*—which has a *ś* affixed to it—gets the nomenclature sārvadhātuka through P 3, 4, 113. A sārvadhātuka affix, further, when it is not *pit*—when it has no *p* affixed to it—becomes as good as a *ṅit* (weak) affix (P 1,2,4) and thus prevents the guṇa of the radical syllable. That is how in the Pāṇinian system provision is made to account for the absence of guṇa of the radical vowel in forms like *nṛtyati, sunoti, tudati, runaddhi* or *krīṇāti,* although a guṇa is expected here by the general rule *sārvadhātukārdhadhātukayoḥ* (P 7, 3, 84).

Does the furnishing of the vikaraṇa with the anubandha *ś* serve any such purpose in the Kātantra system? No, because the technique of Śarvavarman in this matter is quite different. His general rule *nāmyantayor dhātuvikaraṇayor guṇaḥ* (3.5.1) laying down a guṇa when an ending follows is restricted in the case of the vikaraṇas to *an* by Śa. 3.5.3. So we have the above forms like *nṛtyati* etc. without guṇa.[36] To prevent further the guna taking place in forms like *tudati* where also the vikaraṇa is *an*, Śa. frames a special rule *tudāder ani* (3.5.25). With these provisions in the Sūtrap to prevent guṇa in the undesirable places, the furnishing of the anubandha *ś* for the same purpose becomes superfluous and consequently could not have originated from Śarvavarman. (On the other hand, the same vikaraṇas are given in the traditional dhātup., which was evidently so arranged as to agree with the ancient sūtrap., as *yan, nu, aguṇa an, na-śabda* and *nā-śabda*—i.e. without a *ś* and agreeing thus with those in the sūtrapāṭha).

The same is the case of the vikaraṇa of the third or the *hu*-class, which is given as *ślu* i.e. the same as in the Pāṇinian system. Now in the latter school it is meant to secure elision of the general vikaraṇa *śap* (P 2.4.75) and also to provide for a reduplication of the root syllable (P 6.1.10). But in the Kātantra system it serves neither of these purposes. The reduplication of the radical syllable of the *juhotyādi* roots is laid down in Śa. 3.3.8 while the elision of the vikaraṇa is secured by the rule *adāder luk vikaraṇasya* (3.4.92) itself, because in the *Kātantra* system *hu-* class is not a separate one, but just a sub-class of the *ad-* class—*adādyantargaṇo juhotyādiḥ,* as Durga says.[37] The reading of a separate class *hu* and assigning the vikaraṇ *ślu* to it, is therefore not from the pen of Śarvavarman. (In the traditional dhātup. on the other hand, *hu*-class is read within the *ad*-class. The concluding remark there reads: *vṛt juhotyādiḥ. iti lugvikaraṇā*

36. Cf. Durga under this rule: *nāmina upadhāyā nāmyantasya ca any eva vikaraṇe guno bhavati. rocate vartate bhavati nayati. any eva vikaraṇe iti kim? nrtyati sunoti krīṇāti puṣāṇa.*

37. Under Śa. 3,4,92.

adādayo dhātavaḥ samāptāḥ. adādau bhādi—rudādi—jakṣādi—juhotyādaya ete catvāro' ntargaṇāḥ).

At the end of the *bhū-* class in the Tibetan dhātup. the vikaraṇa is seen to be read as *an—anvikaraṇā(ḥ) bhūvādayaḥ samāptāḥ*—the only case where a vikaraṇa peculiar to Śa. is apparently found in the dhātup. But even this single agreement is more apparent than real, for *an* here is evidently an emended text of the editor, since the sources here read only *nyā-* and *nya-* which I think are corrupt readings for *nyāyya-* which, as is well known, means the general vikaraṇa.

There is one more point. In his rule *śruvaḥ śṛ ca* (3.2.35) Śarvavarman lays down the vikaraṇa *nu* for √*śru* and also enjoins the substitution of *śṛ* in its place when this *nu* is to follow. From this it is clear that Śa. also like P had retained √śru in the I class and so along with the substitution of *śṛ*, he had also to teach the vikaraṇa *nu—'ubhayaṁ vidheyaṁ bhauvādikatvāt'* as Durga says. In the Tibetan dhātup., however, *śru* is read just in the V class. Had Śa. been the author of this Dh.P. he would have taught the substitution of *śṛ* only. So this fact also goes against Śarvavarman's authorship of this dhātup. (In the traditional dhātup. we find the root read in the I class in conformity with the Sūtrapāṭha).

There is only one point which seems to be in favour of the view that the dhātup. in question comes from Śa. himself. In the chapter (III, 2) on vikaraṇas Śa. simply gives the vikaraṇas of the different classes without stating roots which belong either optionally or under certain circumstances to different classes. Durga has made good this defficiency by way of his own Vārttikas under the different rules.[38] Now, as said above, we find most of such roots actually read in the different classes in the present dhātup. and it may be argued from this that Śa. did not treat this subject in the Sūtrapāṭha simply because it was unnecessary, as he had already provided for this in the dhātup. itself by arranging his roots to that effect in the various classes and by reading the rule *vā bhrāśa-bhlāśa* .... etc. in the dhātup. itself. But this point can be explained in another way also. Śa. is not out to give a thorough grammar of Sanskrit. He does not mind omitting whole chapters—*kṛdanta*, for instance—and even when he handles a subject he thinks it sufficient to give only the most broad and general rules, dispensing with all the minor details. He disposes the whole subject of voice, for instance, in barely eight sūtras, all the details being later supplied by Durga

38. *bhrāśa-bhlāśa-bhramu-kramu-trasi-truṭi-laṣi-yasi-saṁyasibhyaś ca* under 3.2.33, etc.

in his Vārttikas, of which, to give only one instance, there are no less than sixty-six under one rule (3.2.42) alone. In the present case also it is just possible that Śa. gave only general rules about the vikaraṇas, and later on somebody filled in the details by making the necessary changes in the dhātup. much the same as Durga did it in his own way by framing Vārttikas supplementary to the sūtras.

Considering all these things, I am of opinion that the evidence does not warrant the claim that the dhātup. in question is the original dhātup. of Śarvavarman—on the contrary it definitely goes against it. How in Tanjur it came to be associated with the Kalāpa school, is difficult to say.

Cāndra Dhātupāṭha[39]

A major innovation introduced by Candra is that for every root he gives, as a rule, only one meaning. Where a number of meanings had been assigned to a root before, usually the first of these is retained by Candra. In a very small number of cases we find two meanings given to a root either expressly[40] or by a *ca* added after a meaning,[41] probably through inadvertance.

Another important change is that Candra gives up the use of accents, both on the root and on the Anubandha syllable. The voice is indicated by the descriptive statements at the bottom of the sections, each section conaining only roots belonging to a particular pada. His terms *taṅānin, ataṅāna*[42] and *vibhāṣita*[43] correspond to Pāṇini's ātmanepadin, parasmaipadin and ubhayapadin respectively. Similarly he frames special rules in the Sūtrap. (V, 4) to indicate the roots which take and those which do not take the union-vowel *i* before an ārdhadhātuka affix.

In the arrangement of roots in the first class, again, he differs from Pāṇini. I, 1-305 are all parasmaipadin roots (in the same order as Pāṇini, viz. dentals, gutturals etc.), 306-522 all ātmanepadins (again in the same order; with 496 begin the sub-classes).

39. Published by Liebich in his 'Cāndra-Vyākaraṇa' (pp. 1-34), Leipzig, 1902.

40. e.g. C.Dh. I, 589; 597.

41. e.g. C.Dh. I, 348; 350.

42. The terms *taṅānin* and *ataṅāna* were evidently suggested to Candra by Pāṇini's rule *taṅānā ātmanepadam* (P 1,4,100), *Technique* I, pp. 102-103.

43. The term appears in the P.Dh. also in the sūtra *śaka vibhāṣito marṣaṇe* (IV, 78), where it is interpreted variously by the commentators, one of the interpretations, being that the parasmaipada is made optional here.

In the other classes also C follows the principle of grouping together the roots taking the same pada. He also brings together in a sūtra roots having the same meaning, thus effecting economy[44] (though this is not carried to the logical extent).

Candra's difference from P is most conspicuous in the X class. Firstly, as against about 395 roots of Pāṇini in this class, Candra has only about 114. He does not read what are apparently denominatives.[45] He also does away with the sub-sections *ākusmīya, āsvadīya, ādhṛṣīya* (*yujādi*) and the *kathādi* (with the sub-section *āgarvīya*). The big group of *bhāṣārtha* (v. l. *bhāsārtha*) is also naturally missing.

On the whole Candra's Dhātupāṭha does not differ much from Pāṇini's. He retains the sūtras like '*ghāṭādayo mitaḥ*' etc., '*yaṅluk*' and those at the end of the X class, which others (except Kk, Kt.) properly shift to the Sūtrapāṭha.

There is only one anubandha of P which is dropped by C viz. *ñi*.

Jainendra Dhātupāṭha[46]

This dhātup. has a still different order in the first class. It reads all the ātmanepadin ('*ṅaidit*'[47] in J's terminology) roots first, then parasmaipadin (called *mavanta*), and lastly the ubhayapadins (*ñit*)—an order which Śākaṭāyana entirely follows. (By the way, J retains the root *bhū* at its wonted top place, though he reads the section of the ātmanepadin roots first whereas Śā, who follows the same order, goes one better and removes *bhū* to its proper place viz. parasmaipadin roots in *ŭ*).

In the order of classes, the *hū-* class precedes the *ad-* class. In the case of others, the old order remains.

As regards the Anubandhas, J employs two Anubandhas not used by his predecessors, viz. *ai* (to denote the ātmanepada) and *au* (to denote an aniṭ root, this *au* being later used for exactly the same purpose by Vopadeva also). A peculiarity as regards anubandhas in J is that he actually

44. e.g. II, 1; 12 etc.

45. Like *jal* (*jāla*), *pakṣ* (*pakṣa*), *rag* (*rāga*) etc. He however reads denominatives like *saṁgrāma* (X, 71), *mārga* (X, 73) etc. Kṣīrasvāmin also has noticed this absence of number of roots in the tenth class. Vide his remarks under P.Dh. X,24.45.49.61.65, etc.

46. Edited by Pandit Śrī Lāla Jain Sastri as an appendix to the Śabdārṇavacandrikā, in the Sanātana Jain Grantha Mālā, Benaras, 1915.

47. In J, the anubandha *ai* is added to the roots in consonants to denote that they are ātmanepadin.

reads the anubandhas *ṣ* and *o* after all those roots which have them while P partly reads them and partly only declares, without actually adding them, certain roots as having those anubandhas. (Here Śā follows him in the case of the anubandah *ṣ*, but not in the case of *o*).

With regard to meaning, J sometimes modifies the traditional meanings so as to effect economy (using *mukhaikadeśe* for *vadanaika*° (√*gaṇḍ*); *guptau* for *rakṣaṇe* (√*gup*) etc.), or to give them in a proper form (*daśane* for *dandaśūke* (√*khard*); *śaṅkane* for *śaṅkāyām* (√*rag*) etc.) or to make them more clear (*uccaiḥ śabde* for *śabde tāre*, etc.). He also seems fond of action nouns in *-ti* (thus he prefers *dṛṣṭau* to *darśane*, *gṛhītau* to *ādāne*, *vilikhitau* to *vilekhane* etc.). Lastly in a few cases, the meanings are altogether different (e.g. *śaithilye* against *daurbalye* (√*kṛpa*, *śratha* etc.), *saṁkṣobhe* against *saṁcalane* (√*kṣubh*) etc.).

In the tenth class, J discontinues the practice of reading roots like *sūtra*, *mūtra* etc. (i.e. roots ending in a conjunct) with a final *a*, since it serves no practical purpose. Here also Śā follows him.

The tenth class is broadly divided into two sections, (1) roots which belong to the tenth class alone (1-312), and (2) roots which belong to this class only optionally (313-351). Each of these two groups is further divided into the usual 3 groups, parasmaipadins (1-263, and 313-342), ātmanepadins (264-311 and 343-348) and ubhayapadins (312 and 349-351).

J does not read roots restricted to the Vedic use.

The Jainendra grammar has come down in two recensions, a shorter one which is commented on by Abhayanandin, and a longer one with the commentary Śabdārṇavacandrikā of Somadeva. The shorter version is quite insufficient, the deficiency being filled by Abhayanandin with his Vārttikas. The longer recension is a complete one and it is to this recension that the extant J. Dh. belongs. The dhātup. of the shorter recension, if there was one, has not apparently come down. The roots cited in Abhayanandin's commentary agree with those in the P.Dh. even including the same use of the accents to denote voice and the presence or absence of the union vowel i. This would show that the shorter version had no dhātup. of its own. The Śabdārṇavacandrikā dhātup., however, abandons the use of accents, and uses throughout *ñ* to denote ubhayapada, and *ṅ* or *ai* to denote ātmanepada while the absence of any of these signs denotes parasmaipada, roots belonging to this last category being called mabantāḥ in the dhātup. Whereas, on the one hand, it is impossible that a new system should not have its own dhātup., or that a Jain author belonging to a comparatively later age should resort to the use of accents for a technical purpose, on the other hand it is very

likely that the present dhātup. has undergone a subsequent revision and has received a considerable addition. This is particularly so in view of the fact that it contains a number of roots which are a creation of a later age and are missing even in the Śākaṭāyana dhātup. (e.g. *khurd, manth,* etc.) which usually follows J.

Kāśakṛtsna Dhātupāṭha[48]

This dhātupāṭha is a recent discovery. The students of Sanskrit grammar already know one Kāśakṛtsna,[49] references to whom or to whose work are found occasionally in the Sanskrit grammatical literature.[50] A few quotations from his work are found scattered in different Sanskrit works.[51] This is all that was so far known about Kāśakṛtsna. This is the first time that a whole work going by his name has been discovered.

48. *Kāśakṛtsna-Śabda-Kalāpa Dhātupāṭhaḥ* of Cannavīrakavi, ed. by A. N. NARASIMHIA, pub. in the 'Sources of Indo-Aryan Lexicography' Series by Deccan College Post-Graduate and Research Institute, Poona, 1952. Cannavīrakavi is only the name of the authour of the Kannad commentary which is also printed along with the text. The edition is in the Kannad characters in which both the Mss. on which the ed. is based, were written.

49. MIMAMSAKA *Itihāsa* I, p. 79, has raised a subtle point by saying that the word Kāśakṛtsna as the name of a system of grammar presupposes (by P 4,2,112) Kāśakṛtsni as the name of the author, and not Kāśakṛtsna which, by P 4,2,114, would give the form Kāśakṛtsnīya as the name of the grammar. But since Kāśakṛtsna also actually appears as the name of the grammarian, he concludes that the same author was sometimes referred by the name Kāśakṛtsna, and sometimes by Kāśakṛtsni. It seems, however, that it is not quite imperative to bring in Kāśakṛtsni. The form Kāśakṛtsna (grammar) can be derived from the base. Kāśakṛtsna (author) itself by resorting to *abhedopacāra,* just as Bhaṭṭoji does in the case of the word *'śārīrakam' (bhāṣyam)* in the Kaumudī (under P IV, iii, 87). It is also worth considering whether, on the basis of the Vārttika *vā nāmadheyasya vṛddhasaṁjña vaktavyā,* the word Kāśakṛtsna (author) could not optiotionally cease to be technically called *vṛddha,*—in which case Kāśakṛtsna becomes as legitimate as Kāśakṛsnīya as denoting the work of Kāśakṛtsna.

50. The Kāśakṛtsna system of grammar is referred in the Bhāṣya (Vol. I, p. 12). From remarks like *'trikāḥ Kāśakṛtsnāḥ'* (Cāndravṛtti 3,1,42) and *'trikaṁ Kāśakṛtsnam'* (*Kāśikā* to P 5,1,28) it appears that Kāśakṛtsana's work consisted of three Adhyāyas. It also seems that he was the first to introduce the principle of brevity (*lāghava*) in the construction of the grammatical rules, cf. the oft-quoted statement *'Kāśakṛtsnaṁ gurulāghavam'* (Kāśikā to P 4.3.115; Comm. to SKBh. 4,3,246; Comm. to Śā. 3,1,182). In his comm. to Bhāṣya under P 2,1,50 and 5,1,50 Kaiyaṭa cites two rules of Kāśakṛtsna. Kṣīrasvāmin (quoted by Sāyaṇa in the M. Dh.) in his comm. to P. Dh. II, 60 says that the followers of Kāśakṛtsna favour the form *āśvasta.* Vopadeva (Kkd. 2) mentions Kāśakṛtsna as one of the 'ādiśābdikas'.

51. For a good collection of these, see MIMAMSAKA, *Itihāsa* I, p. 84.

It must, however, be stated at the outset that the present work cannot have come from this Kāśakṛtsna known so far—the *ādiśābdika* Kāśakṛtsna, to use Vopadeva's term. He is usually supposed to be anterior to Pāṇini, evidently owing to the association of his name with that of Āpiśali in the grammatical literature. But unlike Āpiśali he is not mentioned by Pāṇini in the Aṣṭādhyāyī and so some have disputed that claim.[52] Anyway the work which we have now before us must be certainly a post-Pāṇinian work since it uses all the twenty-one Anubandhas of Pāṇini's dhātup. exactly in the same sense. It does not reject any of Pāṇini's Anubandhas nor does it add any. This single fact is enough to show that the author of the present dhātup. has drawn on Pāṇini and consequently he must have come after Pāṇnini. It cannot be argued that it is Pāṇini who borrowed from Kāśakṛtsna since such a wholesale borrowing on the part of P is unthinkable. Besides, Patañjali (under P 7.1.18) expressly tells us that P does not make use of the Anubandas of his predecessors.[53]

Further, there are other circumstances which would show that our work belongs to a still later date. Thus the set of meanings assigned to the roots here is almost the same as given by Bhīmasena and so cannot be earlier than the begining of the Christian era, which is approximately the date of Bhīmasena.

Coming to the arrangement of roots, it has striking resemblance with the traditional Kātantra dhātup. Lastly, many of the roots in this dhātup. like *ḍhuṇḍh* (I, 191) *dast* (X, 50), *śist* (X, 48) etc. seem to be of a very late origin. In fact this is the most inflated of the Dhātupāṭhas. All these things would tend to show that the present dhātupāṭha—at least in the form in which we have it now—is the product of a very late age and cannot have come from the pen of the ancient Kāśakṛtsna who in any case was anterior to Patañjali. For all practical purposes the present dhātup. may be assigned to a period not earlier than 600 A.D.

It will be advisable to give here some aspects of the work in detail because, firstly, the work, which is a new discovery, has been printed for the first time and, secondly, the Kannaḍa script is unfortunately retained in the printed edition.

52. CHATTERJI, *Technique* I, p. 2.

53. This statement of Patañjali is, of course, true only to a certain extent. There are many anubandhas in the Pāṇinian system which were used by his predecessors for the identical purposes, see particularly in this respect Mangala Deva SHASTRI, *The relation of Pāṇini's technical devices to his predecessors*, Proceedings of the 4th Oriental Conference, Vol. II, pp. 469-472.

The work is of the nature of a dhātuvṛtti like that of Kṣīrasvāmin or of Sāyaṇa; only it is on a very small scale. Out of the wealth of forms belonging to the verbal system in Sanskrit, here a single form, viz. 3 sing. Pres. ind. has been cited. The commentary also gives a few nominal derivatives for every root. Every form, verbal or nominal, as also the original Sanskrit meaning, is translated in Kannaḍa. The sequence in each case is: root, its traditional Sanskrit meaning, the verbal and finally the nominal forms (all these elements except, of course, the root being immediately followed by their Kannaḍa translation).

The beginning and the end are as follows:

The beginning:

śrī Yāgaṇṭiśarabhāya namaḥ. Kāśakṛtsna—
śabdakalāpa-dhātupāṭhaḥ. bhvādiḥ.
1. *parasmaipadabhāṣā*
prakṛtipratyayāṅgāya parasmāy ātmanepade/
namo Yāgaṇṭiśarabhaliṅgeśāya carantine//
dhātupāṭhaḥ kṛto yena bālavyutpattisiddhaye/
namas tasmai kāśakṛtsnagurave śivarūpiṇe//

These two introductory stanzas of the commentator are followed by an explanation in Kannaḍa of the second stanza, after which come the remaining two stanzas of the introduction, each followed by its explanation in Kannada. They are:

nipātāś copasargāś ca dhātavaś ca trayo'py amī/
anekārthāḥ smṛtāḥ sadbhiḥ pāṭhas teṣāṁ nidarśanam//
sattāyāṁ maṅgale vṛddhau nivāse vyāpti-saṁpadoḥ/
abhiprāye ca śaktau ca prādurbhāve gatau ca bhūḥ//

After this the main work begins, where there is a repetition of the remarks *bhvādiḥ.* 1. *parasmaipadabhāsā* and of the introductory stanzas No. two[54] and four. A curious feature of the initial portion is that the portion of the dhātupāṭha up to *ruṭha, luṭha upaghāte* (comprising two hundred odd roots) is repeated; the dhātupāṭha alone appears in the first occurrence, while in the second it is followed by the commentary.

54. This stanza, which contains a salutation to Kāśakṛtsna, evidently belongs to the commentary, and not to the original text, i.e. the dhātup.

At the end of every Present class there is a colophon which gives minute details about the commentator. The final colophon runs thus:

iti śrīYāgaṇṭiśarabhaliṅgaprasādinas TittiraYajuḥśākhādhyayanasya Vāmadevamukhodbhūtasya Gajakarṇaputrasya Atrigotrasya Vīramāheśvaratantrasūtrasya Śivalaṅkamañcanapaṇḍitārādhyapravarasya Kokilākuṇḍapurasya mahāmaṭhasya Saṅganaguruliṅganandyambākumārasya Tumukūramahāmaṭhakanthācāryapitṛvya Nambyaṇṇagurukarajātasya Sahyādrikaṭaka-Keḷadinagarasamīpasya ṣaḍdeśasya Kuṇṭikāpurasya Kāśīkāṇḍa- Cannavīrakavikṛtau[55] *Kāśakṛtsna-śabdakalāpasya dvādaśasahasradhātupāṭhasya Karṇāṭaṭīkāyām in-vikaraṇaś curādiḥ. samāptam.*

As said above, this dhātup. has striking affinities with the Daurga dhātup. of the Kātantra grammar. Thus, both treat *hu-* class as a sub-class of *ad-* class. In both, the order of roots in all classes is the same. In both the wording of three dhātu-sūtras[56] in the *ghaṭādi* sub-class which differs from P and C is identical. Both agree in the matter of omission and inclusion of certain roots (e.g. both read √*i* after √*kaṭ;* both read roots like *hvel, dhruva, vṛt* (for *cṛt*), *ij* which are not read by any other schools), in assigning meanings different from others (thus both assign only one meaning viz. *pālana* to √*av* against the nineteen meanings of all other schools; *saukhye* against *sukhe* to √*bhand; asaṁśaye* against *saṁśaye* to √car; *jighāṁsāyām* against *āskandane* (or *hiṁsāyām*, etc.). Sometimes this relationship extends even to minor things—and indeed even to discrepancies (thus both assign the meaning *kathana* against *katthana* of others to √*śalbh;* both read √*mav* twice (Kk, I 227[b] and 262[b]; Kt. I, 163[b] and 196[b]), both read erroneously *śaka mṛṣa kṣamāyāṁ ca* (Kk. IV, 115; Kt. 118) instead of *śaka kṣamāyāṁ, mṛṣa ca,* or *śaka mṛṣa ca kṣamāyām*).

The only difference which Kk. shows from the Kātantra dhātup. consists in reading about 500 roots of a rather odd character which have no

55. This must be amended into °*kaveḥ kṛtau;* otherwise there arises the absurd position of all the previous adjectives in genitive, which are meant to qualify Cannavīrakavi, going with -*dhātupāṭhasya.*

56. *jvala-hvala-hmala-namo'nupasargā vā* and the following two. Whereas the compounds end in genitive in P and C, they end in nominative in Kk. and Kt.

parallel anywhere. Some of these roots are added by extending the present sūtras (i.e. new roots are added against an old meaning) while in the case of many others new sūtras (i.e. both roots and meanings) are framed. A good number of these are evidently meant to supply a verbal basis for certain derivatives which are supposed to be derived from them while a few are cases of error, pure and simple. The anubandhas, e.g. are erroneously taken as roots. Thus the root *mīm-ṛ* is separated into two roots *mī* and *mṛ*, the comm. giving the two forms *mayati* and *marti*(?). The root *o-vai* is read as *u vai* with the forms *avati* and *vāyati*. Even the preverbs are mistaken for roots. Thus *ati-* is given as a root with the meaning *krama-hiṁsayoḥ* whereas really speaking *atikrama-hiṁsayoḥ* is the meaning of the root *aṭṭ* (which is here given as *adi*); sūtra X, 175 reads as *bhū kḷp ava avakalpane* where the first ava is really an erroneous repetition of the preverb *ava-* (forming a part of the meaning) turned into a root.

If one ignores this mass of additional roots, then what remains is nothing but the Kt. Dh. There is a highly significant fact to be noted in this connection. The name of this dhātup. as it appears in the final colophon of the commentary is *Kāśakṛtsna-śabda-Kalāpa*. Now it will at once be recalled that Kalāpa is also another name of Kātantra. The commentator might have deliberately used this word to suggest that the dhātup. which he has commented upon is just a version of the Kalāpa or the Kātantra dhātup.

There is another aspect of this question. The commentary has quoted a number of sūtras, evidently from the Kāśakṛtsna grammar, in the course of its explanations. On an examination of these sūtras it is found that they betray a strong affinity with the Kātantra grammar. Indeed a number of the sūtras and technical terms are identical with those in Kātantra.[57] This shows that the whole system of the Kāśakṛtsna grammar is just another version of the Kātantra grammar.

57. See in this connection the present write's paper entitled '*A Glimpse into the Kāśakṛtsna School of Sanskrit Grammar*' read before the 17th session of the All-India Oriental Conference at Ahmedabad, 1953. As this paper is not printed so far, I quote from it a few instances here. Some technical terms used by Kk. which do not appear in Pāṇini and are otherwise first seen in the Kātantra are: *aghoṣa, anubandha, anuṣaṅga, asārvadhātuka, kavarga* etc., *caturtha, dhuṭ, nāmin, vikaraṇa, saṁdhyakṣara, samāna, svara*. The common vikaraṇas are: *an, ano luk, yan, nu, nā* and *in*. The common sūtras are: *paḥ pibaḥ* (Kk. p. 71 = Kt. 3.6.70), *dhmo dhamaḥ* (Kk. 71 = Kt. 3.6.72), '*mno manaḥ*' and *dāṇo yacchaḥ* (Kk. 71 = Kt. 3.6.74-75), *dvayam abhyastam* (Kk. 175 = Kt. 3.3.5), *vṛddhir ādau saṇe* (Kk. 300 = Kt. 2.6.49) etc. — Of course there are also a number of technical terms and sūtras which are not found in any other known school of Skt. grammar, including even the Kātantra.

There are one or two peculiarities of this dhātup. which may best be mentioned here. Unlike other systems, five roots, viz. *cūṣ, tūṣ, pūṣ, mūṣ* and *sūṣ* are read with a short vowel, i.e. *cuṣ* etc. and a special provision is made in the Sūtrapāṭha for their lengthening (*'cuṣāder dīrghaḥ'*). Similarly in the VI class roots *pṛ, mṛ, dṛ* and *dhṛ* are read as *prī, mrī, drī* and *dhrī* (the comm. gives only such forms as show *-ri-, -priyate, priyaḥ* etc.; forms with *-ṛ-* are not given).

The Kātantra dhātupāṭha[58]

Modern scholars headed by LIEBICH believe that what passes as the dhātup. of the Kātantra school is really Cāndra dhātup. remodelled by Durga for the Kātantra school.[59] As we have already seen, LIEBICH has published as an appendix to his ed. of the Kṣīrataraṅgiṇī a dhātup., reproduced from Tibetan sources, which he believes is the original dhātup. composed by Śarvavarman himself. However, even accepting that the current dhātup. is not the original dhātup. of Śa., the one published by LIEBICH cannot, on account of its numerous and important differences from Śarvavarman's grammar proper (i.e. the sūtrap.), be that original one. This much I have already shown.

But did Śa. really write a dhātup.? We do not know whether Śarvavarman actually wrote a dhātup. for his grammar. Considering that his grammar was originally meant to be only an elementary one, and that consequently he ignored whole topics like the Samāsa, as also the kṛt and the taddhita suffixes,[60] it is not impossible that either he did not write any, or that if he did, it was incomplete. The various references to the roots or their anubandhas in the sūtrap. do not necessarily imply Śarvavarman's own dhātup., for they might have some other then current dhātup. in view, preferably Pāṇini's. Indeed there are some rules touching some aspects of the dhātup. which strengthen the suspicion that when Śarvavarman refers to the dhātup. it is to the Pāṇinian one. While discussing the topic of the pada, Śa. (3,2,42.45) says regarding the roots in consonants that the *rucādi* roots take the ātmanepada endings, and the *yajādi* roots take

58. I have no knowledge of any publication of this dhātup. so far. I have here used chiefly BORI'S devanāgarī Ms. No. 252 of 1884-86. Two Bengali Mss. of the India Office Library, viz., No. 773 and 774 were also constantly consulted.

59. LIEBICH, NGGW, 1895, 316, also Kṣīrataraṅgiṇī, p. 213, footnote; BELWALKAR, *Systems*, pp. 88, 90. WINTERNITZ, *Geschichte*, Vol. III, p. 398, footnote 3.

60. Though all these three sections appear in the current Kt. grammar, and are commented on by Durgasimha, they did not come from the pen of Śarvavarman, but are later additions, see LIEBICH, *Einführung* I, 7; Kṣ. p. 233.

both the sets of endings. Now what exactly do the expressions *rucādi* and *yajādi* mean? Obviously they do not refer to the gaṇas or classes in the usual sense of the term. While the roots *ruc* and *yaj* belong to the first class, ātmanepadin and ubhayapadin roots are scattered over all the ten classes, and so it is impossible to form gaṇas of such roots. Taking, therefore, the word *ādi* in the sense of *prakāra* 'similarity', Durga interprets the word *rucādi* to mean 'roots with an anudātta anubandha-vowel'; the term *yajādi* is similarly explained as meaning 'roots with a *samāhāra* (i.e. svarita) anubandha- vowel.[61] Now are we to understand from this that Śa. had his own dhātup. and that in this dhātup. accents on the anubandha-vowels were actually used to indicate the pada of the roots? I hardly think so. Śa. has nowhere taught accents in the grammar and so it is inconceivable that he would employ these for technical purposes in the dhātup. Secondly, if he had actually used the accents in the dhātup., then in the sūtrap. he would have straightway said e.g., something like *anudātta-ñānubandhebhyaḥ* (3,2,42) instead of using the round-about expression *rucādi°*. I think that Śa. had no dhātup. of his own at all and that when occasion arose he referred to the P.Dh.

It is true that such an outright denial of any dhātup. originating from the founder of the Kātantra school might not be compatible with some features of the Kātantra grammar where it differs from the Pāṇinian school. For instance, there is no rule in the Kt. sūtrap. which teaches directly the dropping of the vikaraṇa (*an*) in the case of roots belonging to the third i.e. *hu* class, Śa. 3, 4, 92 covering only the *ad* class. But in his commentary to this rule Durga cites, along with *atti* and *hanti*, also forms like *juhoti* and *bibheti*, remarking that *hu-* class is a sub-class of the *ad-* class (*adādyantargaṇo juhotyādir iti*).[62] From this one would naturally be led to believe that Śa. had his own dhātup. and that therein he had read *hu-* class as a sub-class of the *ad*-class, thus dispensing with a reference to it in the sūtra 3, 4, 92. I feel, however, that the position can be explained otherwise. The omission of a statement in the sūtrap. declaring the *hu-* class to be a sub-class of the *ad-* class might have been inadvertent and subsequently rectified in the oral vṛtti until finally the *hu-* class came to be actually read within the *ad-* class in the traditional Kt. dhātup. There are many other similar cases of inconsistency or mistakes of omission in the Kt. Thus Śa. 3,6,1 speaks of roots with the anubandha *i*, but actually it is nowhere taught in the

61. *ruca ity anudāttānubandhopalakṣaṇam*, under 3, 2, 42; *samāhārānubandhā ye te yajādayaḥ*, under 3, 2, 45.

62. The reduplication is taught in Śa. 3,3,8.

sūtrap.;[63] similarly Śa. 3,2,28 teaches that the *dyutādi* roots, along with some others, form the Aorist stem in the Parasmaipada with *aṇ* (corresponding to *aṅ* of P), but there is no rule in the Kt. sūtrap. (corresponding to P 1,3,91) which teaches that the *dyutādi* roots, which are otherwise ātmanepadins, become also optionally parasmaipadins in the Aorist. I think the present case also can be similarly explained as due to inadvertence and that it need not necessarily point to a new dhātup. by Śa.

All things considered,—considering that the Kt. grammar was originally highly incomplete and was meant to be only a primary one dispensing more or less with the accessory works, which came to grow around it only in the course of time; that, with a few exception, there are hardly any material deviations from the P. Dh. of such a nature as would have required Śa. to put together an altogether new dhātup.; that the solitary pointers to the possibility of Śa. having composed a new dhātup. can be explained otherwise; and, lastly, that a reference to the use of accents for showing the voice of a root definitely points to the P. Dh.—I am of the opinion that Śa. most probably did not write any new dhātup. but depended on the Pāṇinian one.

If Śarvavarman is not the author of the traditional Kt. dhātup., then who is? In this respect the name of Durga at once comes to the mind. Besides being the earliest exponent of the Kt. grammar who wrote down the vṛtti on the sūtrap., Durga is also often mentioned in the grammatical literature as an authority on the dhātup.[64] Comparing the views attributed to Durga in the Kṣīrataraṅginī and the Purusakāra with the current Kt. dhātup., I have found that in the majority of cases they tally with it. It is also interesting to note that though Ks., whose work is replete with citations from older works in the field, obviously quotes from the Kt. dhātup. scores of times, he never once mentions the name of Kt., but invariably gives the quotations under the name of Durga. All these things point to the conclusion that the authorship of the traditional Kt. dhātup. is to be assigned to Durga.

Citations from Durga's explanations of the traditional meanings of roots are sometimes met with.[65] As only a commentary is a proper place

63. On this Durga remarks: *ata eva varjanād idanubandhānāṁ no'stīti.*—The corresponding rule in P is *idito num dhātoḥ* 7.1.58.

64. Ks alone, e.g. mentions *Durga* 93 times, *Daurgāḥ* 23 times, and *Daurgaṁ sutram* once. Pk. mentions *Durga* 20 times and *Daurgāḥ* 6 times.

65. Cf. e.g. Ks. under I, 421: *ṣṭubhu stambhe. stambhaḥ kriyānirodhaḥ, stobho doṣavṛddhyākhyārtha iti Durgaḥ* (p. 34); under I, 695: *tvakṣa tvacane. tvacanaṁ tvaco grahaṇam, saṁvaranam iti Durgaḥ.*

for explanations, it might be inferred from this that Durga had also written a commentary on his dhātup.

LIEBICH, followed by almost all the modern scholars, says that Durga's dhātup. is really just the revised and remodelled Cāndra dhātup. itself. It is not clear what direct evidence LIEBICH had on the strength of which his statement is based;[66] but there are certainly some points of resemblance between the two dhātupāṭhas which suggest that Durga had Candra's dhātup. before him and that he adopted some of its features which had impressed him. The striking resemblance which the Kt. Dh. everywhere (except in the class X) bears with the C.Dh. (as against the P. Dh.) in the matter of arrangement of roots will be patent even to the most casual reader. Occasionally, though rarely, Durga prefers meanings in the C.Dh. to those in the P.Dh.[67] Also, Candra's peculiar term for the ubhayapadin, viz. *vibhāṣita* is frequently met with in the Kt. dhātup. also. There is one point in the tenth class which bears the most eloquent testimony to the close affinity between these two dhātupāṭhas. Along with many other roots the *yujādi* class of roots i.e. those belonging to the *cur-* class optionally, are not read by Candra. In his dhātup. Durga also first gives all the regular roots of this class at the end of which he remarks: *kaiścic curādiṣu yujādayaḥ paṭhyante*,[68] and then reads the *yujādi* roots. This shows that he generally regarded C.Dh. as the model, and therefore was not very enthusiastic about reading the *yujādi* roots in the tenth class.

Durga has taken proper care to see that the dhātup. which he wrote conformed to the Kt. sūtrap. and that there was no discrepancy. The agreement of vikaraṇas, inclusion of the *juhotyādi* class in the *adādi* class etc. fully demonstrate this.

The Kt. dhātup. however differs from the Cāndra Dh. in two important respects: firstly, the meanings given by Bhīmasena are, as a rule, retained, and not curtailed as in C;[69] secondly, the tenth class is not curtailed but given fully. As regards anubandhas, *ñi*, the only anubandha which was rejected by Candra, is restored by Durga.

66. The NGGW 1895, where LIEBICH has made the statement, was not available to me.

67. Cf. e.g., *kleśa vyaktāyāṁ vāci* P, but *kléśa bādhane C* Kt, *haṭha pluti-śaṅkubandhanayoḥ* P, but *haṭha balātkāre* Ckt.

68. This remark is found in the BORI Ms. but not in the *IO* Mss. Since, however, it also occurs in the closely allied Kk dhātup., there is no doubt regarding its genuineness.

69. The case of the √*av* to which only one meaning viz. *pālana* is assigned as against the nineteen meanings in the P.Dh. is an exception.

The order of roots (excepting the tenth class) is, as said above, the same as in Candra, though occasionally Durga changes the arrangement so as to effect economy or regularity. (Thus of the aniṭ roots, *tap, yam* and *nam* are shifted to their proper place in the general block [the others however are retained]; similarly 7 roots *ri, pi,* etc. (C.Dh. VI, 101-106) have been removed and given their proper place in other parasmaipadin roots). Durga also differs from Candra in omitting certain roots (like *taṅg, tvaṅg, dhvanj, tej, gaj, sphaṭ, vraṇ, bhraṇ* etc.) and adding certain new ones (like *dhraj, jim, cucy, jinv, taṁs, nis* etc). He also reads some roots in different classes (e.g. √*dhinv* not in the I class but in V). The wording of three dhātusūtras in the *ghaṭādi* group is also slightly changed by him.

In the tenth class, Durga reads, as said above, all the roots known to him and also follows a different principle in their presentation. As mentioned above, he first reads all the roots which belong necessarily to this class (including the sub-classes), then gives certain rules governing the formations of certain denominatives, and only after this he introduces the roots belonging to this class optionally. This process of segregating the optionally *curādi* roots and reading them at the end is also followed in the Jainendra dhātup. and the arrangement followed here is also the same as in that dhātup.

A peculiarity of this dhātup is that it avoids artificial technical terms and in their stead uses simple ones. Thus, *pānubandāḥ* (for *ṣitaḥ*), *mānubandhāḥ* (for *mitaḥ*) etc.

Vedic roots are, as in C, retained.

A fact to note about this dhātup is that it has greatly influenced the later development of the P. Dh. through Maitreyarakṣita. There are many roots (like *khurd, manth, sphurch, meṭ, muṭ, ruṭh, luṭh* etc.) which must have crept from the Kt. Dh. into the P. Dh. through M, seeing that though they have been regularly read by M, *Kṣ.* did not find them in his version of the P. Dh. but added them on the express authority of Durga. And this is not to be wondered at, since M hails from Bengal which had been a stronghold of the Kt.

The close affinity between the Kk. and the Kt. dhātupāṭhas has been already noticed above. However, in the absence of the exact knowledge of the relative chronology of Kk. and Durga, it is difficult to say who is indebted to whom; is is, therefore, equally probable, that Kk. came after Durga. Under these circumstances, the priority given to Kk. here is to be regarded as purely provisional, and subject to revision in the light of future researches.

Śākaṭāyana's Dhātupāṭha[70]

In many respects Śā. Dh. is nothing more than a revised edition of the J dhātup. His order of roots in the I and X classes is almost the same as J's. He also omits the Vedic roots. After the V class he has a different sequence for the classes, viz. IX, VI, VIII, VII and X. Also, his is the only dhatup. (excepting, of course, the Kkd.) which does not begin with √*bhū*.

Śā. differs from his predecessors in using *ī* as a symbol for the *ātmanepada* (instead of for an insertion of *n*). This has resulted in a successive variation in the significances of many other anubandhas also. In the case of meanings he sticks to the traditional meanings more faithfully than J.

A point to note is that instead of the word dhātupāṭha he has used the word *mūlaprakṛtipāṭha* in his maṅgala at the beginning of his work.

A peculiarity of Śā. is that he is very systematic in the arrangement of roots within sections. He rarely gives more than one Dhātusūtra for one meaning.

Hemacandra's Dhātupāṭha[71]

A speciality of the H dhātup. is that he strictly follows the alphabetical order in the arrangement of roots. In fact he is the most systematic writer in this respect. He carries this orderliness even to the various subclasses and the tenth class—which latter no other author has deemed it necessary to order systematically. He would have liked to shift the leading roots of the different classes and subclasses to their proper alphabetical place, but he has retained them there out of regard for his predecessors. A peculiar point in this alphabetical order is that the conjunct *kṣ* is not treated as *ṣ* for this purpose, but is treated as a separate letter and is assigned the last place, i.e. after *ḥ*. Thus, roots ending in *-kṣ* are not treated as ending in *-ṣ*, but are given separately after those ending in *-ḥ*.

Like the Kk. and Kt., H also treats the *hu-* class as a sub-class of the *ad-* class. Further, he introduces the system of employing Anubandhas to denote the present classes. This Anubandha is repeated after every root (or after every last root where a sūtra contains more than one root)—except in the case of the first class which is characterised by an absence of this kind of Anubandha. The advantage of this arrangement is evident. Even

70. Published in the Pandit (N.S. 41,1919); as Anhang III to his ed. of the Kṣ. by Liebich. The latter ed. is followed here.

71. Published in the Śrī Jain Yaśovijaya Series (3), Benares, 1905; also edited, with the author's own commentary, by Kirste, Wien. 1901, which is followed here.

by an off-hand utterance of the root in the form in which it is read in the dhātup. (or the dhātusūtra) one can at once say without referring to the dhātup. to which present class the particular root belongs.

One more peculiarity of H as regards the Anubandhas is that he is alone in using an *anusvāra* (either on the radical or on the Anubandha-vowel) to denote an aniṭ root. Otherwise he follows Śā.

H himself has written a commentary on his dhātup. where he has made a full use of the Kṣīrataraṅgiṇī. H is particularly indebted to Kṣīrasvāmin for the explanations of the meanings.[72]

Kavikalpadruma — the dhātupāṭha of Vopadeva[73]

This is the last of the dhātupāṭhas worth mentioning. From the point of view of form, it differs frm the older dhātupāṭhas in two respects: firstly, it is a metrical work; secondly, it does not consist of the usual ten classes following one another, but of groups based on the final letter of the root, the present-class to which a particular root belongs being indicated by a particular anubandha.

There are in all 361 anuṣṭubh stanzas. The first fourteen of these form an introduction to the main work. The author begins with a salutation to Āditya, apparently his favourite deity (st. 1). He then mentions the names of the ancient grammarians whose works he studied before he set out to write his own dhātup. (2^a—3^a). He then describes the principle behind the selection of roots (3^b), the order here followed in giving the roots (3^{cd}), the various types of sources from which the roots read here have been culled (4^{cd}), the part the Anubandhas play in this work (5), and the conditions whch govern the application of these anubandhas (6). He then explains the significance of every Anubandha (7-12) and enumerates roots forming certain sub-classes and also the aniṭ roots in vowels (13-14; those in consonants are indicated by an anubandha *au*). From the fifteenth stanza onward the main work begins.

Roots are here arranged alphabetically in groups according to the *final* letter of the roots, the group of roots ending in *a* coming first and that of roots in *h* coming last. Further, within the groups, roots are arranged alphabetically according to the *initial* letter, those beginning with *a* coming

72. Liebich, *Kṣīrataraṅgiṇī*, p. 203.

73. Edited many times in Bengal, both in Devanāgarī and in Bengali. Critically edited for the first time by the present writer, and published by the Deccan College Post-graduate and Research Institute, Poona, in the Sources of Indo-Aryan Lexicography Series, Poona, 1954.

first, and those with h last. (Further strictness of the order, however, among roots which both begin with and also end in the same letter is not followed). With the stanza 15 begin the roots ending in *a* and with 353 end the roots in *h*. Then follow what are called the Sautra roots, forty-two in number, which are also arranged in the same order (354-359; incidentally, no other work gives such a large number of Sautra roots). The last two stanzas (360-361) mark the conclusion of the work where the author gives the total number of roots read here, and some personal information, viz. his own name and those of his father and the teacher, and also his place of residence.

The most outstanding feature of the Kkd. is exhaustiveness, both as regards roots and also meanings. The author has left no source untapped and gives more roots than are found in any other single dhātup. — excepting, of course, the Kk. dhātup. His main source is Kṣīrsvāmin's Kṣīrataraṅgiṇī on which he leans more heavily than on any other source.

There are many points to note in the case of meanings. Firstly, in a large number of cases, he does not exactly reproduce the meanings assigned by Bhīmasena, evidently because his choice of words is governed, to a large extent, by the exigencies of metre. Secondly, in a number of cases he has simply reproduced the paraphrases of the traditional meanings by Ks., incorporating even the alternative explanations offered by him. Thirdly, the author has been at times obliged — again by the metrical considerations — to use out-of-the-way words. The use of the words with a pleonastic *-ka* is also a bit too frequent. Lastly, an agreeable feature in this respect is that sometimes he gives particular shades of meanings instead of merely stating general ones.

Coming to anubandhas, we are confronted with a host of new ones, which Vop. has had to resort to, particularly to denote the various classes and sub-classes on account of the peculiar arrangement of roots in this dhātup. A speciality of these is that the author has been at great pains in selecting such letters for this purpose as would be quite natural, i.e. the very utterance of which at once suggests the leading root in the particular class to which a particular root belongs. As regards the other anubandhas Vop. has left most of the anubandhas of P intact. A single anubandha is taken from another system, viz., *au* from the Jainendra dhātup. to denote an aniṭ root.[74]

74. For particular instances illustrating the various statements made here regarding the Kkd., vide Introduction to my ed. of the Kkd.

CHAPTER III

GROUPINGS, ANUBANDHAS AND OTHER TECHNICAL DEVICES USED IN THE DHĀTUPĀṬHAS

GROUPINGS, ANUBANDHAS AND OTHER TECHNICAL DEVICES USED IN THE DHĀTUPĀṬHAS*

The dhātupāṭhas are not meant to be merely so many lists of roots. Whatever the purpose there might have been in the compilation of such lists in their initial stages, in the form in which we see them in the Pāṇinian and subsequent dhātupāṭhas they are meant to be supplementary to the respective sūtrapāṭhas (i.e. to the main part of the grammatical system), and to serve some additional purposes. Besides listing the roots, they are also intended to give a lot of information concerning them. They state, e.g. the pada (voice) in which a particular root is usually conjugated; the manner in which the Present (and in some cases the Aorist also) stem is made; whether a nasal appearing as a penultimate in some roots is liable to be dropped before the weak terminations; whether or not a particular root takes the union-vowel *i* before a particular set of endings; which of the roots beginning with *n* cerebralize it after a pre-verb containing the sound *r*; which roots containing a particular *a* do not lengthen it (or do it optionally) in their causative stem, etc., etc. All this variety of information can be had by a mere glance at the place and the form of the root in the dhātup., thanks mostly to the ingenious grouping of roots, and to the wonderful system of the Anubandhas[1] (code letters) invented by the ancient Hindu grammarians.

A considerable part of the sutrap. consists of rules teaching the various operations which the roots undergo in the different verbal formations or primary derivatives. Now it is common knowledge that while some roots display individual peculiarities, many others behave in a common way under a particular set of conditions. They thus have something in common. These

* For a general treatment of the anubandhas in the P.Dh. and the C.Dh. and for lists of roots carrying various Anubandhas in these two dhātupāṭhas, as also for other technicalities, see LIEBICH, *Einführung* III, *Der Dhātupāṭha*.—For an attempt to provide a rational explanation of some of the apparently arbitrary significances of the Anubandhas, CHATTERJI, *Technique*.

1. The word 'Anubandha' literally means 'that which is suffixed' (*anu paścād badhyata iti*). An Anubandha, however, is not only suffixed but is quite often prefixed also.

roots characterised by a common property form, so to say, a group or class. Roots like *yaj*, e.g. change their *ya* to *i*, or *va* to *u*—i.e., they undergo saṁprasāraṇa— before weak affixes; or, roots like *śam* lengthen their radical vowel in their present stem. Now the simplest and the most elementary way of teaching these phenomena would be to enumerate *all* such roots in the sūtrap. in a rule and to say there that these roots undergo such and such operation under such and such conditions. Thus in 3,1.58 P enumerates roots which optionally form their Aorist base with the suffix *aṅ;* or in 3.1.51 he enumerates roots which in the Veda do not form a reduplicated Aorist from their causal stem.

But such a process is evidently lengthy and is suitable only where the roots involved are few. With the growing fondness for brevity, therefore, need must have been already felt for a shorter process. This resulted, therefore, in actually grouping together, wherever possible, these congenial roots in the dhātup. itself (and not in the sūtrap.) and it was these groups (named after the leading root) and not the individual roots that came to be mentioned in the sūtrap. when their peculiar common character was being stated, thus dispensing with the repetition of these roots in the sūtrap.

The way in which a particular group of roots was indicated in the sūtrap. also shows many forms. The earliest stage seems to have been to mention the leading root (in the plural) and to state the total number of roots as e.g. *śamām aṣṭānāṁ dīrghaḥ śyani* (P 7.3.74) or *phaṇāṁ ca saptānām* (P 6.4.125) or *rudaś ca pañcabhyaḥ* etc.[2] An interesting case where another form is adopted to indicate the beginning and the end of the group is the rule *jvalitikasantebhyo ṇaḥ* (P 3.1.140) where along with the first the last root in the group is also mentioned—i.e. on much the same principle on which the pratyāhāras like *aṇ, ak* etc. are formed. Also the peculiar use of *iti* in the sense of ādi (*'itiśabda ādyarthaḥ'* as the Kāśikā here remarks) is to be noted. A similar use occurs in the rule *śamityaṣṭābhyo ghinuṇ* (P 3,2.141). But soon the grammarians seem to have hit on the final form which came to stay, viz., to add in the dhātup., after the last root in the

2. The peculiar use of plural in *śamām, phaṇām etc.* (on a par with cases like *śauṇḍaiḥ* in P 2,1,40) which is intended to convey the idea of the group or class of roots *śam, phaṇ* and the like, may be noted. On this the Kāśikā remarks: *bahuvacananirdeśād ādyartho bhavati* (under P 1,3,91). It reminds one of the similar use of the proper names: *Gargāḥ*=the descendents in the line of Garga; and of the somewhat similar modern use with regard to the surnames; thus 'the Nehrus' meaning the Nehru family, or its members. On the peculiar uses of plural number, see Ram Shankar BHATTACHARYA, *Some unknown senses of plural number as shown by Pāṇini*, JUB Vol. XXIII (New Series), Part 2, pp. 45-48.

group, a word *vṛt*[3] to mark the conclusion of a group and to say in the sūtrap. that a particular root and those which follow (i.e. those read until the term *vṛt* occurs) undergo a particular operation. Thus *śe mucādīnām* (P 7.1.59), *pvādīnāṁ hrasvaḥ* (P 7.3.80), *radhādibhyaś ca* (P 7.2.45) etc. Here also it is important to note that the word *ādi* 'etc.' is often omitted and the leading root is put in the plural. Thus *dyudbhyo luṅi* (P 1.3.91), *vṛdbhyaḥ syasanoḥ* (P 1.3.92) etc. Incidentally, the occurrence of these various ways in the Pāṇinian school would show that the Aṣṭādhyāyī and the P.Dh. are not a work of one man but of generations, continually revised, until finally it received its present form at the hands of Pāṇini.[4]

But the above method of actually grouping together roots is evidently applicable only in the case of roots which belong to the same general Present-class. It cannot be resorted to when the roots showing a peculiar feature appear in different classes. So some contrivance had to be found out which would effect groups 'in absentia', so to say, and this ultimately resulted in what is called the anubandha system—the use of the symbols or the code letters.

These two methods, viz., actually arranging roots into groups, or, where it is not possible, indicating the group by code letters have been used side by side. The Anubandha-system did not drive out the group system as it was more conducive to brevity. There are some cases where the roots marked by a common behaviour have been indicated only by actually grouping them, like the *jakṣ-* or the *śam-* class; there are others where for similar purposes only the code-letter method is followed, as e.g. the roots which form an abstract noun in *-athu*, or an adjective in *-trima* (in the sense of

3. This root-noun is usually derived from √*vṛt* and is understood either as an action-noun (Kṣ.; *vartanaṁ vṛt* 'end, conclusion') or as an agent-noun (*'kartari kvip'* BM) and paraphrased by *saṁpūrṇa* or *samāpta* ('that which has come to an end'). Kṣ. (p. 62) also refers to its derivation by some from √*vṛdh*: *vṛdheḥ kvip, vardhitau pūrṇāv ity eke.*

4. Mention may be made here of the peculiar case of two rules in the Aṣṭ., 3,1,134 and 3,3,104 which, though they seemingly lay down certain operations to groups of roots, do not primarily and directly refer to the root-groups as usual (simply because there are no such root-groups), but to groups of primary derivatives, the roots at the bottom of these derivatives being ultimately understood as undergoing the particular operation. Under the former rule the Kāśikā remarks thus: *nandigrahipacādayaś ca na dhātupāṭhataḥ saṁniviṣṭā gṛhyante, kiṁ tarhi? nandana—ramaṇa—ityevamādiṣu prātipadikagaṇeṣu apoddhṛtya prakṛtayo nirdiśyante.* Similarly it remarks under the latter rule thus: *gaṇapaṭhiteṣu bhidādiṣu niṣkṛṣya prakṛtayo gṛhyante.* The actual grouping of roots was here impossible owing to the roots being spread over more than one Present-class. One wonders, however, why in the case of many roots of the *bhid-* group, the anubandha ṣ, which has the same office, could not have been used.

'produced by'); and, lastly, there are also cases where both these methods have been adopted simultaneously for one and the same purpose, as e.g. the *puṣ-* class and the Anubandha *ḷ* where both indicate a root which forms its Aorist stem with a weak *a*; or the *lū-* class and the anubandha *o* where both indicate a root which forms its past participle in *-na* instead of in *-ta*. This is to be accounted for on the principle of brevity. Thus it is easy to see that instead of affixing the letter *ḷ* to all the sixty four roots (P.Dh. IV, 73-136) it is more economic to form their group as such while the roots showing the same peculiarity but belonging to various Present classes should have been indicated by the anubandha. The choice of the method in each case was governed by the considerations of brevity or economy.

The Anubandha, also commonly termed as *it* ('that which goes,[5] or is dropped,' i.e. that which is only a part of the technique, and does not appear in the actual language), strictly speaking, consists of a letter prefixed or suffixed (explicitly or implicitly). We may, however, extend the application of the term to such technical devices as a particular way of pronouncing a radical or Anubandha vowel. Of these two, the former is the more common and is more extensively used. The latter is rather rare. Thus to denote an aniṭ root it is read with an unaccented root-vowel by P and with a nasalised root-vowel by H. P also makes use of accents to denote the voice of a root. Barring these solitary cases, everywhere the Anubandha consists of the affixing of letters.

In the majority of cases the Anubandha-letter is actually prefixed or suffixed to the root, but there are some cases where it is only partly affixed and partly it is declared to be as good as affixed. Thus in the P.Dh. the Anubandah *o* is actually affixed only to a few roots like *ruj* (VI, 123), *hā* (III, 7, 8) etc., but in the case of roots *sū* etc. (IV, 24-32) they are only declared to have that Anubandha (*svādaya oditaḥ*), without the Anubandha being actually affixed to them. Similar is the case of the Anubandha *ṣ* which, while it is actually suffixed to roots like *jṛ* (IV, 22) or *pac* (I, 1045), is only declared to be as good as affixed to roots *ghaṭ* etc. (I, 800-812). Here also it will be easily observed that the roots *sū* etc. and *ghaṭ* etc. belong to the same general Present-classes and so they could be grouped together and thus the repeating of the Anubandha after every root could be dispensed with.

5. *eti gacchati iti it* (√*i*+*kvip*), cf. *aprayogī it* J Śā etc. Some western scholars regard *it* to be a broken part of *iti*. The traditional explanation, which is evidently preferable, is found for the first time in the Candra-Vṛtti (to C 1,1,5): *iṇaḥ kvip, tuk, etīti it. gacchati, na tiṣṭhati, lupyata ity arthaḥ.*

Here is one more point to note. The groups like *puṣ-, lū-* etc. on the one hand and the *ghaṭ-, sū-* etc. on the other do not stand exactly on the same level. Whereas in the case of the former group the grammatical operation is directly laid down with reference to the root-classes without declaring them to be, e.g., *ḷdit, odit,* etc., in the case of the latter an Anubandha is first declared and the operation is taught through the Anubandha. Ultimately it makes no difference. Only there is no consistency in the treatment. The latter schools to some extent improve upon this. J. Dh. e.g., apparently not looking upon the principle of brevity to be so very sacrosanct, actually reads the Anubandha *o* after all the roots of the *sū-* class; and Śā. and H likewise actually read the Anubandha *ṣ* after the roots of the *ghaṭ-* class.

The case of the Anubandha *m* is still different. It is nowhere (i.e. excluding the *Kavikalpadruma*) actually affixed to a root, but only declared to be as good as affixed to the broader *ghaṭ*-class (P I, 800-854) and a few other roots.

In this respect Kkd. stands on a different footing. Roots in this dhātup. are arranged alphabetically according to the final letter of the roots. Grouping together of roots into classes and sub-classes was therefore here physically impossible. The author had to use an Anubandha to denote every common feature and he had to repeat that Anubandha in the case of each root which has that common feature. Thus, he has to repeat *ḷ* after all the roots forming their Aorist stem with *a,* or *o* after all the roots forming their past participles in *-na* and so on.

Now we pass on to the consideration of the significance of each Anubandha. A few Anubandhas are common to all the schools but in the case of others, the various schools are divided in two groups, one headed by Pāṇini and the other by Śākaṭāyana. Śa.[6] C. J. Kk. Kt. and Vop. mostly follow P in using a particular Anubandha for a particular purpose, while H usually follows Śā. In a few cases where even Śā agrees with P, H goes his own way. Further, H and V employ Anubandhas, each in his own way, to indicate the particular Present-class of a root which the others do not think necessary. Lastly V has a set of Anubandhas to indicate the various sub-classes or the groups, which was not necessary in the case of other schools.

6. Here and in similar contexts the symbol Śa stands for the so-called dhātup. of Śarvavarman, the traditional dhātup. of his school being designated by the symbol Kt.

a.[7] The final *a* coming after a root in consonant is not strictly an Anubandha but is read simply for the facility of pronunciation. In the P.Dh., however, it serves two additional purposes. Firstly, it carries an accent (which serves as an Anubandha) and secondly it preserves the final consonant of the root as otherwise it would have got the designation *it* and would have to be elided (P 1.3.3; 1.3.9).

The final *a* in the case of the roots belonging to the *katha-* class (a sub-class within the tenth-class), however, is regarded as an integral part of the root. Its purpose is, *inter alia*, to prevent a guṇa or a vṛddhi of the radical vowel by depriving it of its penultimate position. Thus, from √*katha-*, *kathayati* as against *tāḍayati* from √*taḍ; guṇayati* against *corayati*, etc.[8] In the Kkd. this *a* is indicated by an Anubandha *t*.

ā. Roots with this Anubandha though ordinarily seṭ, do not admit the union-vowel *i* in their past participle (passive or active); they however do it optionally when an impersonal act (*bhāva*), or the beginning of an action is denoted by the participles (P 7, 2, 16.17; H 4, 4, 71-72). Thus from √*mid* (*ñi-mid-ā* P I, 779), *minnam* or *meditaṁ tena, praminnaḥ* or *prameditaḥ saḥ*. In other cases we have only *minna* and *minnavat*.

1 *i* (P etc.)=1 *u* (śāH). Some roots which have a penultimate nasal are not actually read in the dhātup. with that nasal but it is indicated by the Anubandha *i* (P 7,1, 58 etc.)=u (ŚāH 4,4,98). Thus the roots *laṅgh, vāñch, luṇṭh, vand, kamp, kāṅkṣ* and *raṁh*, e.g., have been read as *lagh-i, vāch-i, luṭh-i* etc. in P etc. and as *lagh-uṅ, vāch-u, luṭh-u* etc. in Śā H. This procedure is meant to distinguish this nasal coming in by virtue of the Anubandha from the nasal which is actually read in the other set of roots like *añc, dhvaṁs, sraṁs* etc. The set of roots which retain their penultimate nasal before a weak affix is read with the Anubandha (P 6,4,24; H 4,2,25) while the set of roots which drop their nasal in the similar circumstances is actually read with the nasal. Thus from √*laṅgh, laṅghyate;* from √*vand, vandyate*. On the other hand from √*dhvaṁs, dhvasyate;* from √*sraṁs, srasyate*.

7. The absence of any symbol of dhātup. here and in the following cases indicates that the value of the Anubandha concerned is common in all the dhātupāṭhas.

8. Cf. the following remarks of Hemacandra at the beginning of the *katha*-group: *ita ūrdhvaṁ yujādeḥ prāk adantatvaṁ dhātūnāṁ vidhīyate. tataś ca 'ata'* (H 4,3,82) *ity allukaḥ sthānivattvād guṇavṛddhyoḥ, samānalopitvāc ca sanvadbhāva—dīrgha-upāntya-hrasvānām abhāvaḥ. yathā, sukhayati racayati: atra ..... guṇavṛddhyabhāvaḥ; araracat asusukhat: atra ..... sanvadbhāvo ..... dīrghaś ca na bhavati. asusūcat: atropāntya-hrasvābhāvaḥ.*

2 *i* (Śā H) = an anudātta Anubandha-vowel (P) = 1 *ai* (J) = *ṅ* (V).

Roots with the Anubandha *i* in Śā H = an anudātta Anubandha-vowel in P = *ai* in J = *ṅ* V take ātmanepada endings (Śā. 1,4,2; H 3,3,22; P 1,3,12; J, 1,2,6; Kkd. 9cd). Thus from √*edh* (*edh-i* Śā I, 1; *edh-i* H 741; *édh-a* P 2; *edh-ai* J 2; *ṅ-edh-a* Kkd. 211b), *edhate;* from √*spardh* (*spardh-i* Śā. I, 2; *spardh-i* H 742; *spárdh-a* P 3; *spardh-ai* J 3; *spardh-aṅa* Kkd. 218c), *spardhate.* Out of these four Anubandhas, *ṅ* is used in the Kkd. to indicate every Ātmanepadin root, whether ending in a vowel or in a consonant, while the other three are used, almost universally, in those respective dhātupāṭhas, to indicate only consonantal ātmanepadin roots[9] (where alone they can be conveniently used; for roots in vowels Anubandha *ṅ* is used, for which see below). Very rarely, also for roots in vowels, as in *yu-ṇ-i, gṝ-ṇ-i* (H X, 237; 238), where a consonantal Anubandha already follows the root, *i* itself is used.

There are no corresponding symbols in Śā C, KK, Kt.; C simply says *taṅānā yathāpāṭham* (1,4,46), which principle is apparently to be applied to the other dhātupāṭhas also.

ir (P etc.) = 1 *ṝ* (Śā H). Roots with the Anubandha *ir* in P etc. = *ṝ* in Śā H optionally form their Aorist-stem with a weak *a* (P 3,1,57; H 3,4,65). Thus from √*cyut* (*cyút-ir* P I, 40; *cyut-ṝ* Śā I. 296a), *acyutat* and also *acyotīt;* from √*bhid* (*bhid-ìr* P VII 2; *bhid-ṝñ* Śā VII 2), *abhidat* and also *abhaitsīt.*

1 *ī* (P etc.) = 2 *ai* (Śā H). Roots with the Anubandha *ī* in P etc. = *ai* in Sā H do not take the union-vowel *i* in their past participle (P 7.2.14; H 4.4.61). This from √*dīp* (*dīp-ī* PIV, 72; *dīp-aiṅ* Śā 84a), *dīpta* and *dīptavat;* from √*cit* (*cít-ì* P I 39; *cit-ai* Sā 294), *citta* and *cittavat.* What distinguishes 1 *ī* : *ai* from *ā* is that in the case of *1ī* : *ai* the absence of the union-vowel is obligatory even when the ppl. denotes either a *bhāva* or the beginning of an action.

2*ī* (Śā H) = a svarita Anubandha-vowel (P) = *ñ* (JV). Roots with the Anubandha *ī* in Śā H = a svarita Anubandha-vowel in P = *ñ* in JV are ubhayapadins i.e. they take ātmanepada endings when the fruit of the action,

9. Since in the Ph.D., roots ending in consonants alone take an unaccented Anubandha-vowel indicative of the ātmanepada, the term anudāttet becomes practically a synonym of 'an ātmanepadin root ending in a consonant.' Thus in 3,2,149, where Pāṇini really teaches an operation regarding consonantal ātmanepadin roots, he simply refers to the roots by the expression anudāttet, which suffices. In the corresponding rules in the other schools, on the other hand, the authors had either to say it in so many words (e.g. *iṅito vyañjanādyantāt* H 5,2,44), or to resort to some round-about way (e.g. *taṅvato halāder aṅaḥ* C 1,2,98). Cf. Vopadeva's paribhāṣā: *ṅid dhalanto' nudāttet* (Kkd. 13cd).

for which it is performed accrues to the agent, parasmaipada otherwise, (Śā 1,4,66; H 3,3,95; P 1,3,72; J 1,2,82; Kkd. 9[d]). Thus from √*yaj* (*yaj-ī* Śā I, 539; *yaj-īṁ* H 991; *yaj-à* P 1051; *yaj-auñ* J 904; *yaj-aiñau* Kkd. 126[c]), *yajate yajati;* from √*vap* (*ḍu-vap-ī* Śā I, 540; *ṭu-vap-īṁ* H 995; *ḍu-vap-à* P 1052; *ṭu-vap-auñ* J 905; *ḍvai-vap-auñ* Kkd. 263[a]), *vapate vapati.* Whereas JV use *ñ* for both the vowel and consonantal roots, *ī* and the svarita-Anubandha-vowel in the other schools are restricted, for convenience, to the consonantal roots (for vowel-roots *g* and *ñ are* used, for which see below). There are no corresponding symbols in the remaining dhātupāṭhas, C relying on the dhātup, itself (Cf. *pāṭhe vibhāṣitāt* C 1,4,25).

No sign is employed to indicate a parasmaipadin root; it is simply characterised by an absence of any voice-indicating Anubandha. The udāttetŧva in the P.Dh. is, therefore, just to show that the Anubandha vowel is neither anudātta nor svarita — thus resulting in the parasmaipada by P 1.3.78.

1 *ū* (Śā H). See 2 *u* (P etc.) above.

2 *u* (P etc.) = 1 *ū* (Śā H). The roots with the Anubandha *u* in P etc. = *ū* in Śā H admit the union-vowel *i* only optionally in their gerundives in *-tvā* (P 7.2.56; H 4.4.42). Thus, from √*śam* (*śám-ú* PIV 92; *śam-ū* Śā 31a), *śamitvā* or *śāntvā;* from √*tam* (*tám-ú* P IV 93: *tam-ū* Śā 32), *tamitvā* or *tāntvā.*

1 *ū* (Śā H). See 2 *u* (P etc.) above.

2 *ū* (P etc.) = 1 *au* (Śā H). Roots with the Anubandha *ū* in P etc.=*au* in Śā H are *veṭ* i.e. they take in the union-vowel *i* only optionally (P. 7.2.44; H 4.4.38). Thus from √*sidh* (*ṣídh-ū* P I, 49; *ṣidh-au* Śā 299), *asedhīt* or *asaitsīt, sedhiṣyati* or *setsyati;* from √*gāh* (*gāh-ū* P I, 680; *gāh-auṁ* Śā 159), *gāhitā* or *gāḍhā, gāhiṣyate* or *ghākṣyate.*

ṛ. Roots with this Anubandha do not shorten their radical vowel in the Aorist from the causative stem (P 7.4.2; H 4,2.35). Thus from √*yāc* (*ṭu-yāc-ṛ* P I, 916), *yācayati ayayācat;* from √*bādh* (*bādh-ṛ* P I 5), *bādhayati ababādhat* against, e.g., *acīkarat* (Pres. *kārayati*), *ajīharat* (Pres. *hārayati*).

1 *ṝ* (Śā H). See *ir* (P etc.) above.

2 *ṝ* (V). Roots with this Anubandha in Vopadeva's dhātup. shorten, only optionally, their radical vowel in the Aorist from the causative stem (Kkd. 8[a]). Thus from √*pīḍ* (*pīḍ-ṝk* 161[c]), *apīpiḍat* or *apipīḍat;* from √*jīv* (*jīv-aṝ* 290[c]), *ajījivat* or *ajijīvat.* In the other systems these roots are enumerated in the sūtrap., e.g. P 7.4.3 and in the Vārttika thereon; C 6.1.63-64; H 4,2,36 etc.

ḷ. Roots with this Anubandha form their Aorist stem in the Parasmaipada with a weak suffix *a* (*aṅ*) (P 3.1.55; H 3,4,64). Thus from √*gam* (*gam-ḷ*' P I, 1031), *agamat;* from √*śak* (*śak-ḷ*' P V, 15), *aśakat*.

Since all the roots furnished with the above-mentioned *ḷ* happen to be aniṭ (with the sole exception of √*pat*), J makes an ingenious use of this Anubandha and teaches (5.1.123) that *ḷ* indicates, except in the case of √*pat*, an aniṭ root also. His general Anubandha which bears this office is *au* (see below) whose reading he thus spares in the case of the *ḷdit* roots.

e. Roots with this Anubandha necessarily preserve their radical short *a* in the *iṣ*-aorist (P7.2.5; H 4,3,39). Thus from √*kakh* (*kákh-é* P I, 821), *akakhīt;* from √*has* (*hás-é* P I, 757), *ahasīt* against, e.g. *araṇīt* or *arāṇīt, akaṇīt* or *akāṇīt*.

1 *ai* (J), see 2 *i* (Śā H) above.

2 *ai* (Śā H), see 1 *ī* (P etc.) above.

3 *ai* (V). Roots with this Anubandha in the Kkd. belong to the *yaj*-class (*air yajādiḥ* Kkd. 8[c]), i.e. they undergo saṁprasāraṇa before an affix marked with *k* (i.e. a kind of weak affix). Thus from √*vah* (*vah-aiñau* 352[a]), *uhyate ūḍhaḥ* etc.; from √*vap* (*ḍvai-vap-auñ* 236[a]), *upyate uptaḥ* etc.

o. Roots with this Anubandha form their past participle with *-na* instead of with *-ta* (P 8,2,45; H 4,2,70). Thus from √*ruj* (*ruj-ó* P VI, 123) *rugṇa rugṇavat;* from √*dī* (*dī-ṅ* P IV, 26, belonging to the *sū*-class which is *odit*), *dīna dīnavat*.[10]

1 *au* (Śā H), see 2 *ū* (P etc.) above.

2 *au* (JV) = an anudātta root-vowel (P) = a root with an anusvāra (H).

Roots with the Anubandha *au* in J (also *ḷ*, see above) — V = an anudātta root-vowel in P = an anusvāra in H are aniṭ (J 5,1,123; Kkd. 8[d]; P 7,2,10; H 4,4,56). Thus from √*kruś* (*kruś-au* J I, 395; *kruś-jau* Kkd. 299[a]; *kruś-á* P I, 909; *kruś-aṁ* H 986), *kroṣṭā;* from √*ruh* (*ruh-au* J I, 397; *ñij-ruh-au* Kkd. 349[cd]; *ruh-á* P I, 912; *ruh-aṁ* H 988), *roḍhā*.

10. Mention may here be made of another *o* which is strictly not an Anubandha, but has practically the same value. I refer to the *o*- roots of the *div*- class viz. *cho* 'cut', *do* and *so* 'bind', and *śo* 'whet'. The *o* of these roots never appears in the concrete words, being substituted by *ī* in some forms, while in others it drops out altogether. It is clear, therefore, that it owes its existence only to technical reasons.

The other schools do not employ any Anubandha for this purpose, but simply enumerate the roots in the sūtrap. itself, e.g. C 5,4,130 ff.; *Śā.* 4,2,176 ff.

With the aniṭ roots thus indicated, no Anubandha was regarded neeessary for indicating seṭ roots, it being automatically understood that the rest are seṭ—unless, of course, they are furnished with *2 ū = 1 au*, in which case they are veṭ (see above). The furnishing of the udātta accent to the seṭ roots in the P.Dh. is, therefore, only to show that the radical vowel is not anudātta.[11]

1 *k* (all except HV). This Anubandha is suffixed only to the roots *i* 'remember' and *hā* 'abandon' in order to distinguish them from roots with identical spelling but different meanings. Thus the rule *adhīgarthadayeśāṁ karmaṇi* P 2.3.52 refers to *i-k* (P. Dh. II 38) and not to *i-ṇ* or *i-ṅ* (P. Dh. II 36-37).

The addition of this Anubandha to the root *hā* (*o-hā-k*. P. Dh. III, 8) serves, according to the commentators, another purpose also, viz. of putting it on the same level as the other root *hā* (*o-hā-ṅ* III, 7) 'go,' by equalising the number of Anubandhas in both the cases. The result is that the rule *haś ca vrīhikālayoḥ* P 3.1.148 is understood as referring to *o-hā-ṅ* as well as *o-hā-k*, whereas, it is pointed out, had there been no *k* after *o-hā* the rule would have been understood as referring to *o-hā-k* only.[12]

2 *k* (H). Hemacandra makes use of this Anubandha to denote roots which form their present stem without any vikaraṇa, i.e. roots belonging to the 2nd and the 3rd class. Thus from √*īr* (*īr-ik* H II, 57), *īrte;* from √*hu* (*hû-k* III, 1), *juhoti.*

11. Cf. *'udātta ity asya* (i.e. of √*bhū*) *anudāttatvābhāvena ekāca upadeśe'nudāttād* (P 7,2,10) *itīḍāgamaniṣedhābhāvāt seṭtvam'* Kṣ., p. 2.

12. *'kakāro haś ca vrīhi°'* (P 3,1,148) *ity atra pūrvasyāsya ca sāmānyagrahaṇārthaḥ. anyathā ekānubandhakatvād asyaiva syāt* (M.Dh. under *o-hā-k tyāge*). It is evident that the commentators have the maxim *tadanubandhakagrahaṇe nātadanubandhakasya* (Paribhāṣā 82) in view, though none of them has actually cited it here as such. It is also evident that they interpret the Paribhāṣā as meaning *ekānubandhakasya grahaṇe saṁbhavati na dvyanubandhakasya grahaṇam.* Nāgeśa, however, has rejected this interpretation. See his concluding remark on the Paribhāṣā and the Citprabhā thereon.—In C, the rule *ho vrīhikālayoḥ* (1,1,56) (corresponding to P 3,1,148) is made to apply to *o-hā-k* only (*jahāter vrīhau kāle ca ṇyuḍ bhavati*, as the vṛtti says); the addition of *k* in this dhātup. is therefore only to distinguish it from *o-hā-ṅ*, as for example in *hākaḥ* (C 5,3,109) (corresponding to *jahāteś ca* [6,4,116] of Pāṇini), which rule applies only to *o-hā-k*, and not to *o-hā-ṅ*.

3 *k* (V) = 1 *ṇ* (H). Roots with the Anubandha *k* in V = *ṇ* in H belong to the tenth or the cur-class (*kaś curādiḥ* Kkd. 9[a]). Thus from √*taḍ* (*taḍ-ak* Kkd. 159[b]; *taḍ-aṇ* H X, 59), *tāḍayati;* from √*kṛt* (*kṛt-aka* Kkd. 179[d]; *kṛt-aṇ* X, 82), *kīrtayati.*

ki (V). Roots with this Anubandha belong to the tenth or the cur-class only optionally, i.e. they alternately belong to the general or the first (*bhū-*) class also. Thus from √*yuj* (*yuj-ki* Kkd. 125[d]), *yojayati* and *yojati;* from √*bukk* (*bukk-aki* Kkd. 84[c]), *bukkayati* and *bukkati.*

kṣ (V). Roots with this Anubandha belong to the *jakṣ-* class (a subclass within the second or the *ad*-class; *kṣo jakṣādiḥ* Kkd. 12[d]). They behave, in some respects, like the 3rd or the *hu-* class, in that in the present system they drop the nasal in the 3rd pl. endings in the Parasmaipada as well as in the Ātmanepada (and, of course, in the present participle), and in the Imperfect have *us* instead of *an* (cf. P 7.1.4,78; 3.4.109). Thus from √*jakṣ* (*jakṣ-akṣlugh* Kkd. 311[d]), *jakṣati ajakṣuḥ jakṣat* against, e.g. *adanti ādan adan.*

1*g* (H) = *ñ* (others). Roots with the Anubandha *g* in H = *ñ* in others are ubhayapadins (H 3,3,95; P 1,3,72). Thus from √*śri* (*śri-g* H I, 883; *śri-ñ* P 945), *śrayati śrayate.* As said previously (under 2 *ī*), JV use this Anubandha for both the vowel and the consonantal roots; P Śa C Kk Kt use it with only vowel-roots; while Śā H also mainly use it with vowel-roots, but they employ it with consonantal roots also, if a vowel-anubandha already follows roots, e.g. *dhāv-ūñ* (Śā. I, 547) : *dhāv-ūg* (H 920); *ḍu-yāc-ṛñ* (Śā. I, 551[a]) : *ḍu-yāṁc-ṛg* (H 891).

2 *g* (V) = 1 *ś* (H). Roots with the Anubandha *g* in V = *ś* in H belong to the ninth or the *krī*-class (*gaḥ kryādiḥ* Kkd. 9[b]). Thus from √*mī* (*mī-ñag* Kkd. 54[c]; *mī-ṁgś* H IX, 5), *mīnāti mīnīte;* from √*grah* (*ga-grah-añ* Kkd. 345[a]; *grah-īś* H IX, 10), *gṛhṇāti gṛhṇīte.*

gi (V). Roots with the Anubandha *gi* in V form a *pū-* class (within the *krī-* class; *giḥ pvādir api* Kkd. 9[b]). They shorten their radical vowel in their Present-stem (cf. *pvādīnāṁ hrasvaḥ* P 7.3.80). Thus from √*pū* (*pū-ñgi* Kkd. 64[b]), *punāti punīte;* from √*lū* (*lū-ñagi* Kkd. 65[b]), *lunāti lunīte.*

gh (V). Roots with this Anubandha in V form the *rud-* class (*gho rudādiḥ* Kkd. 9[c]), i.e. they admit the union-vowel *i* before a consonantal suffix (except one beginning with *y*) even though the suffix be a sārvadhātuka one (cf. P 7.2.76). When this suffix consists of a single consonant, *i* is replaced by *ī* or *a*. Thus from √*rud* (*lghira-rud* Kkd. 204[bc]), *roditi, ruditaḥ, arodīt* or *arudat;* from √*svap* (*ṣvap-aughluñi* Kkd. 236[c]) *svapiti, svapitaḥ, asvapīt* or *asvapat.*

ṅ. Roots with this Anubandha are ātmanepadins (P 1,3,12; H[13] 3,3, 22). Thus from √*śī* (*śī-ṅ* P II, 22; *śī-ṅk* H 47[a]; *śīṅlañi* Kkd. 56[b]), *śete*. This Anubandha is used with both the vowel and consonantal roots in V; with the vowel roots alone (with the solitary exception of *cakṣ-iṅ*)[14] in P Śa C Kk Kt. JŚā H use it mainly with vowel roots, but with consonantal roots also if a vowel-Anubandha intervenes, e.g. *gādh-ṛṅ*, etc.

This Anubandha is used, with identical purpose, in the case of the secondary or derivative roots also. Thus *śyenāyate* (from *śyena* with *kyaṅ* P 3,1,11), *utpucchayate* (from *utpuccha* with *ṇiṅ* P 3,1,20), *pāpacyate* (from √*pac* with *yaṅ* P 3,1,22), *ṛtīyate* (from √*ṛt* with *īyaṅ* P 3,1,29; with *ṅīya* H 3,4,3).

P 6,1,186 teaches that the (primary) ātmanepadin roots, both *ṅit* and *anuddāttet*, take the accent on the radical vowel in the finite forms of the Present-system: thus *āste, váste sūte, śéte*.

c (H) = 1 *y* (V). Roots with the Anubandha *c* in H = *y* in V belong to the fourth or the *div-* class (*divādyo y* Kkd. 11[d]). Thus from √*nṛt* (*nṛt-aic* H IV, 9; *nṛt-ya* Kkd. 182[a]), *nṛtyati;* from √*puṣ-aṁc* H IV, 32; *ḷ-puṣ-yau* Kkd. 317[a]), *puṣyati*.

j (V). Roots with this Anubandha in V form a *jval-* class (*jo jvalādyaḥ* Kkd. 10[a]). They form their agent nouns with the suffix *a*, before which the root vowel *a* is optionally lengthened and *u* is optionally gunnated. Thus from √*jval* (*jval-jma* Kkd. 274[d]), *jvala* and *also jvāla;* from √*kas* (*kas-aj* Kkd. 331[d]), *kasa* and also *kāsa*. From *kruś* (*kruś-jau* Kkd. 299[a]), *kruśa* and *krośa;* from *pul* (*pul-ja* Kkd. 277[c]), *pula* and *pola*.

ñ. See above under 1 *g*.

ñi. Past passive participles from roots with this Anubandha are not restricted to the past tense but denote an action or a state belonging to the present time also (P 3.2.187; H 5,2,92). Thus from √*bhī* (*ñi-bhī* P. Dh. III, 2), *bhīta* 'afraid'; from √*dhṛṣ* (*ñi-dhṛṣ-ā* P. Dh. V, 22), *dhṛṣṭa* 'bold'.

Candra has dispensed with this Anubandha. In the Vṛtti to C 1,2,123, however, forms like *prakṣviṇṇa* are referred to, and are apparently intended to be learnt from the *śiṣṭaprayoga*.

1 *ṭ*. This Anubandha is suffixed in all the dhātupāṭhas (except Kkd.) to √*dhe* 'suck'. According to the unanimous opinion of the ancient writers

13. KIELHORN's ed. of Hemacandra's dhātupārāyaṇa throughout reads ङ (*ḍ*) for ञ (*ṅ*).

14. C, however, *cakṣ-a*.

its purpose is to secure the feminine agent noun with ī (*ṅīp* or *ṅī*) in forms like *stanaṁdhayī* etc.[15] according to *ṭiḍḍhānañ°* P 4,1,5 (= J 3,1,18; Śā. 1, 3,14; H 2,4,20 etc.). It is, however, strange, that in this single case an Anubandha should have been affixed to the root, instead of to the suffix forming the primary or the secondary noun, which is the universal practice.[16]

LIEBICH,[17] perhaps for the above reason, looks upon the Anubandha as being meant to distinguish this root from √*dhā* (*ḍu-dhā-ñ*), and thus to avoid the confusion between the two. Though P invariably mentions the root as *dhe-ṭ*[18] (e.g. 3, 1, 49; 2, 4, 78), it is doubtful if the Anubandha was intended to serve the purpose LIEBICH assigns to it, for the root could have been there mentioned simply as *dhe,* thus without causing any confusion with *dhā.* In fact this is what Candra actually does, cf. e.g., his rules *dheśver vā* (1, 1, 69) and *ghrā-dhe-śācchāso vā* (1, ,1 63). Secondly, whenever P wants to refer to √*dhā* alone, he mentions it in an unequivocal form as e.g. in *dadhāter hiḥ* (7, 4, 42), *dadāti-dadhātyor vibhāṣā* (3, 1, 139). Lastly, if we leave aside this Anubandha here, there is no other provision in the traditional grammar to account for forms like *stanaṁdhayī.* All things considered, I am inclined, though not without reluctance, to accept the explanation of the commentators.

2 *ṭ* (H) = *n* (V). Roots with the Anubandha *ṭ* in H = *n* in V belong to the fifth or the su- class (*naḥ svādiḥ* Kkd. 11[a]). Thus from √*hi* (*hi-ṁṭ* H V 10; *hi-n* Kkd. 50[b]), *hinoti;* from √*śi* (*śi-ṁgṭ* H V, 3; *śi-nañ* Kkd. 49[c]), *śinoti śinute.*

ṭu. Roots with this Anubandha form an action noun with the suffix *-athu* (*ṭvito 'thuc* P 3.3.89; H 5, 3, 83). Thus from √*śvi* (*ṭuo-śví* P. Dh. I, 1059), *śvayathu* 'swelling'; from √*vep* (*ṭu-vép-ṛ* P. Dh. I 391), *vepathu* 'tremor'.

ḍu. Roots with this Anubandha take a primary ending *-tri* to form an abstract noun when — and only then — a secondary ending *-ma* is to follow to form an adjective in the sense of 'made or produced by' (P. 3.3.88;

15. *'dheṭaṣ ṭittvāt striyāṁ ṅīp pratyayo bhavati'* Kāś. under P 3,2,29. *'dheṭ pāne. ṭakāraḥ stanaṁdhayītyādau ṅībarthaḥ'* Kṣ.: vide also M.Dh. under this root.

16. It is also equally strange that even with the affixing of the Anubandha directly to the root, the form *-dhayā* has been equally acknowledged along with *-dhayī,* cf. M.Dh. op. cit. Further, the form *-dhayī* is restricted by some to *stanaṁdhayī* only, by others to compounds formed with the second member ending in *-khaś.* On this TB remarks: *atra saṁpradāya eva śaraṇam!*

17. *Einführung* III, 39.

18. Others also similarly mention the root with *-ṭ* in the sûtrap., e.g. J 1,4,15; 2,1,57; Śā. 4,2,74: 4,3,8; H 3,4,59; 4,3,67.

4.4.20). Thus √*kṛ* (*ḍu-kṛ-ñ* P VIII, 10), *kṛtrima* 'artificial'; from √*pac* (*ḍu-pac-aṣ* P I, 1045), *paktrima* 'made by cooking'.

The above is the process of PC (1, 3, 68; 3, 4, 20), etc. Others like H teach a single ending *-trima*: *ḍvitas trimak tatkṛtam* (H 5, 3, 84); *ḍus trimagyutaḥ* (Kkd. 10[b]).

1 *ṇ* (H). See 3 *k* above.

2 *ṇ*. This Anubandha is used in all schools except V to distinguish √*i* 'go' from √*i* 'remember' and √*i* 'study'. Thus P in *iṇo yaṇ* (P 6.4.81) or in *iṇo gā luṅi* (P 2.4.45) refers to *i-ṇ* (P. Dh. II, 36) i.e., √*i* meaning 'go' only and not the other two roots having the same spelling.

3 *ṇ* (P etc., except V) = 1 *m* (H). Pāṇini and others (including Śā.) affix the Anubandha *ṇ*, and H affixes *m* to root *dā* 'give' belonging to the first class (P Dh. I, 977) to distinguish it from the another root *dā* with the same spelling and meaning, but belonging to the third or the *hu-* class (P. Dh. III. 9). In 1.3.55 (where P mentions a colloquial use of √*dā*) and 7.3.78 P. refers to this root. The corresponding rules in H are: *dāmaḥ sam-pradāne'dharmye ātmane ca* (2, 2, 52), and *śrautikṛvu°* (4, 2, 108).

V does not use any Anubandha for the above purpose.

4 *ṇ* (V). Roots with this Anubandha in V belong to the *phaṇ-* class (*ṇaḥ phaṇādiḥ* Kkd. 10[c]), i.e. they optionally contract their root and reduplication together, having *e* as its vowel in the weak forms of the Perfect (cf. P 6.4.125). Thus, from √*phaṇ* (*phaṇ-amiṇ* Kkd. 176[b]), *paphaṇatuḥ* and *pheṇtuḥ;* from √*rāj* (*rāj-ṛñṇa* Kkd. 127[c]), *rarājatuḥ* and *retatuḥ*.

1 *t* (H) = 2 *ś* (V). Roots with the Anubandha *t* in H = *ś* in V belong to the sixth or the *tud-* class (*ś tudādikaḥ* Kkd. 12[b]). Thus from √*viś* (*viś-aṁt* H VI, 101; *śau-viś* Kkd. 304[ab]), *viśati;* from √*mṛś* (*mṛś-aṁt* H VI, 102; *mṛś-aśau* Kkd. 303[b]), *mṛśati*.

2 *t* (V). This Anubandha in V indicates a root of *katha-* class ending in *a* (*tas tv adantaḥ* Kkd. 10[c]), for the significance of which see under *a*.

d (V) = 2 *y* (H). Roots with the Anubandha *d* in V = *y* in H belong to the eighth or the *tan-* class (*das tanādiḥ* Kkd. 14[d]). Thus from √*kṣiṇ* (*kṣiṇ-duñ* Kkd. 172[c]; *kṣiṇ-ūyī* H VIII, 4), *kṣiṇoti kṣiṇute;* from √*van* (*van-duṅa* Kkd. 223[ab]; *van-ūyi* H VIII, 8), *vanute*.

dh (V) = 1 *p* (H). Roots with the Anubandha *dh* in V = *p* in H belong to the seventh or the *rudh-* class (*dh rudhādikaḥ* Kkd. 10[d]). Thus from √*ric* (*ric-irñadhau* Kkd. 107[c]; *ric-ṝṁ-pī* H VII, 2), *riṇakti riṅkte;* from √*bhañj* (*bhanj-odhau* Kkd. 124[d]; *bhanj-aṁp* H VII, 14), *bhanakti*.

n (V). See 2 *ṭ* above.

1 *p* (H). Se *dh* above.

2 p (P etc. except V) = 1 *v* (Śā[19] H). A few roots which show the forms *dā* and *dhā* (either in the Dhātupāṭha or in certain formations) follow a general pattern in some verbal and primary forms[20] and are jointly designated, for brevity's sake, by a technical term *ghu* in P (1.1.20) Śā (1, 1, 23) = *dā* in Śa. (3, 1, 8) C (1, 1, 4) H (3, 3, 5) = *bhu* in J (1, 1, 28). Two roots, viz., *dai* 'purify' (P I, 971) and *dā* 'cut' (II, 50) however do not conform to this pattern, to indicate which they have been marked with the Anubandha *p* in P etc., = *v* in Śā H, it being explained in the sūtrapāṭha (vide above-quoted rules) that the roots marked with the Anubandha *p* (*v* in Śā H) are not included in the *ghu* = *dā* = *bhu*- group.

C differs from others in wholly excluding the *dhā* roots from the common group, as a result of which he has to read *dhā* every time along with *dā* (vide the rules from C quoted in the foot-note 20), whereas the others could dispense with it by merely reading *ghu*, etc.

3 *p* (V). Roots with the Anubandha *p* in V form the *muc*- class (a sub-class within the *tud*- class; *po mucādiḥ* Kkd. 11[a]), i.e., these roots strengthen their present stem by a nasal. Thus, from √*muc* (*muc-ḷṣpañau* Kkd. 106[b]), *muñcati muñcate;* from √*vid* (*vid-ḷṣpañau* 205[d]), *vindati vindate.*

b. See 2 *p* above.

bh (V). Roots with this Anubandha in V form the *śam*- class (a sub-class within the *div*- class; *bhaḥ śamādiḥ* Kkd. 11[b]), i.e., they lengthen their vowel in their present stem. Thus, from √*śam* (*śam-ubhirya* Kkd. 255[c]), *śāmyati;* from √*mad* (*mad-ībhirya-ñi* 202[c]), *mādyati.*

1 *m*. See 3 *ṇ* above.

2 *m*. Roots with the Anubandha *m* do not lengthen their penultimate radical vowel *a* in the causative stem. Thus from √*ghaṭ, ghaṭayati;*

19. There is some confusion (evidently due to the orthographic similarity) as to whether the Anubandha used in Śā. is व (v) or ब (b). Both the dhātup. editions (PANDIT and LIEBICH) read v. In the sūtrap. (1,1,23), however, the printed eds. (Pannalal JAIN, p. 216; SUKTHANKAR, p. 18) read b. In the foot-note 2 in the former ed., even a question is raised whether the Anubandha could not be *p*, the ultimate decision being given in favour of *b*. Considering, however, the general agreement of Śā and H in the matter of the Anubandhas, I am inclined in favour of *v*.

20. The Aorist-stem, e.g., of these roots consists of the bare root; they also change their root-vowel to ī when consonantal weak endings follow. Cf. P 2,4,77; 6,4,66= Śa. 3,4,93; 3,4,29=C 1,1,62; 5,3,77=J 1,4,149; 4,4,69;=Śā. 4,1,73; 4,2,87=H 4,3;66; 4;3;97.

from √*vyath, vyathayati.* They however do so optionally in the 3. sing. Aor. passive and the gerundive in *am* from the causative stem (P 6.4, 92-93).[21] Thus *aghaṭi* and *aghāṭi, ghaṭaṁ ghaṭam* and *ghāṭaṁ ghāṭam; avyathi* and *avyāthi, vyathaṁ vyatham* and *vyāthaṁ vyātham.*

As said before, this Anubandha is actually added only by V. P Śā C Kk Kt only declare (in the dhātup.) that the roots forming the larger *ghaṭ-* class and a few others including, with a few exceptions, those which end in *m,* are *mit* (*ghaṭādayo mitaḥ*) while J Śā H dispense with this Anubandha at all and teach the operation directly to the *ghaṭ*-class and the other roots concerned.[22]

mi (V). This Anubandha in V indicates roots which behave in the above way optionally. Thus from √*phaṇ* (*phaṇ amiṇ* Kkd. 176[b]), *phaṇayati* and *phāṇayati;* from √*stan* (*ṣṭanmi* Kkd. 224[a]), *stanayati* and *stānayati.*

1 *y* (V), see *c* above.

2 *y* (H), see *d* above.

r (V). V employs the Anubandha *r* to indicate roots which are restricted to the Vedic use (*ra vaidikaḥ* Kkd. 12[d]), like *ghṛ* (*ghṛ-rli* Kkd. 66[d]), *ki* (*r-ki-li* Kkd. 47[b]), *dru* (*r-dru-n* Kkd. 59[c]), etc. P Śa C Kk Kt read a gaṇa-sūtra *chandasi* in the dhātup. to indicate the Vedic character of these roots, while J Śā H do not read these roots at all. These roots mostly belong either to the third or to the fifth class.

l (V.) Roots with this Anubandha in V belong to the second or the *ad-* class (*l adādikaḥ* Kkd. 11[d]). Thus from √*śī* (*śī-ṅlañi* Kkd. 56[b]), *śete;* from √*yā* (*yā-l* Kkd. 45[a]), *yāti.*

li (V). Roots with this Anubandha in V belong to the third or the hu- class (*lir hvādiḥ* Kkd. 12[a]). Thus from √*dā* (*ḍu-ñli* Kkd. 42[d]), *dadāti datte;* from √*bhī* (*ñi-bhī-li* Kkd. 54[a]), *bibheti.* It has already been said above that H combines the ad- and the hu- class and indicates the combined class by the Anubandha *k.*

lu (V). Roots with this Anubandha which form the *svap- class* (*luḥ svapādiś ca* Kkd. 12[a]), a sub-class within the *ad-* class, optionally accent their radical vowel before a sārvadhātuka vowel ending (cf. P 6, 1, 188). Thus from √*svap* (*ṣvap-aughluñi* Kkd. 236[c]), *svápanti* or *svapánti;* from √*śvas* (*śvas-ghalu* Kkd. 341[c]), *śvásanti* or *śvasánti.*

21. The corresponding rules in Śa and C are 3,4,65-66 and 6,1,56-57 respectively.
22. Cf. J 4,4,90; Śā. 4,1,202; H 4,2,24.

1 *v*, see 2 *p* above.

2 *v* (V). Roots with the Anubandha *v* in V belong to the *vṛt-* class (a sub-class within the bhū- class; *vo vṛtādiḥ* Kkd. 12[b]), i.e. though ordinarily Ātmanepadins, they take Parasmaipada endings also in the first (i.e., *sya-*) future, the conditional and the desiderative (cf. P 1.3.92). Thus from √*vṛt* (*vṛt-ṅu-vḷ* Kkd. 183[d]), *vartate, vavṛte* but *vartiṣyate* or *vartsyati, vivartiṣate* or *vivṛtsati, avartiṣyata* or *avartsyat.*

Further, as *vṛt-* class is also included in the *dyut-* class, these roots optionally take the Parasmaipada endings in the Aorist also. Thus *avartiṣṭa* or *avṛtat.*

1 *ś* (H), see 2 *g* above.

2 *ś* (V), see 1 *t* above.

śi (V). Roots with the Anubandha *śi* in V form the *kuṭ-* class (*śiḥ kuṭādiś ca* Kkd. 12[c]). The root-vowel in the case of these roots does not undergo any strengthening—unless the following suffix happens to be such as generally causes a vṛddhi strengthening of the stem (a *ñit* or *ṇit* affix in the Pāṇinian terminology, cf. P 1.2.1). Thus from √*kuṭ* (*kuṭ-śi* Kkd. 134[c]), *kuṭiṣyati akuṭīt,* etc.; from √*sphur* (*sphur-śi* Kkd. 269[c]), *sphuriṣyati asphurīt,* etc.

ṣ. Roots with this Anubandha form feminine action nouns not with *-ti* but with *-a* (*aṅ*) (P 3, 3, 104; H 5, 3, 107), which contracts with the feminine ending *ā* into *ā* (P 3.3.104). Thus from √*jṝ* (*jṝ-ṣ* P IV, 32), *jarā;* from √*tvar* (*ñi-tvár-ā* P I 812; a root belonging to the smaller *ghaṭ-* class which is declared to be *ṣit* 'ghaṭādayaḥ ṣitaḥ'), *tvarā,* etc.

A tabular statement showing the correspondences of the Anubandha is given on pp. 77-80.

Having studied the denotations and the correspondences of the Anubandhas, we now pass on to a subtler but more or less purely theoretical question, viz., the relationship between the Anubandhas and their significances. That the Anubandhas are at least apparently artificial is self-evident. There seems no earthly reason except the author's sweet will why, e.g., the symbol *i* in the P. Dh. should indicate a root with a stable penultimate nasal only and not, e.g., a seṭ root. (One is tempted to think that an Anubandha *n* would perhaps have been perfectly natural to indicate a root with a stable penultimate nasal, and *i* to indicate a seṭ root!). The Anubandhas, though thus by their very nature artificial, need not however be wholly arbitrary, and if we could only follow the workings of the author's mind, it would be possible to detect some plan, however hazy or rough,

behind the apparently arbitrary selection of Anubandas; a sort of method in arbitrariness, like Hamlet's 'method in madness'.[23]

We naturally start with the P.Dh. which contains the oldest known Anubandha-system, which has been kept intact substantially by some of the later schools, and partly by others. While thinking of the connection between the Anubandhas and their significances the thing which suggests itself first is that the universal features of the roots must have claimed Pāṇini's attention first while the particular features must have received attention only afterwards. To take a concrete example: Roots which form an action noun in *-athu*, or roots which form the ppl. in *-na* are comparatively few; but roots which contain a stable nasal, or roots which do not shorten their radical vowels in the reduplicated Aorist are far in number. Going further, every root must be either seṭ (necessarily or optionally) or aniṭ; similarly every root must be either parasamaipadin, ātmanepadin or ubhayapadin. It might be reasonable to suppose that these last named two features, universal that they are, must have been accorded top-priority in Pāṇini's scheme regarding the assignment of the Anubandhas. Next came features which concerned larger groups of roots, while those pertaining to comparatively smaller groups of roots came last. We may therefore formulate a broad principle, based on naturalness and common sense, that the larger the group (characterized by a common feature), the earlier it came in for the assignment of the Anubandha.

Let us now go to the other end, i.e., the Anubandhas, and see if any plan has been followed in taking them up for assigning them their denotations. Since brevity is the soul of the technique of the traditional Sanskrit grammar also, we would be justified in supposing that such of the Anubandhas as ensured utmost economy were naturally given preference. The Anubandhas which did not involve affixing of letters, i.e., those consisting of the modification of the root-vowel, must have been given priority while the actual addition of the Anubandha letters may be presumed to have been resorted to only when the modification of the radical vowel was no more possible. As regards the choice between the vowels and the consonants, vowels can suitably be suffixed to the consonantal roots, and consonants to the roots ending in vowels. Further, in the case of the vowels added it may be reasonable to suppose that preference was given to simple vowels

23. I must mention here that the idea of finding out a rational explanation for the Anubandhas, regarded as artificial so far, was suggested to me by CHATTERJI's *Technique* where, for the first time, he has tried to explain some other Anubandhas appearing in the different systems of the Sanskrit grammar.

The type of Anubandha	Anubandha	DHĀTUPĀṬHAS								
		P	Śa	C	J	Kk	Kt	Śā	H	V
Accenting	Udātta root vowel	Udātta root vowel	—	—	—	—	—	—	—	—
,,	Anudātta root vowel	Anudātta root vowel	—	—	2 *au*	—	—	—	Anusvāra	2 *au*
,,	Udātta anu-bandha vowel	Udātta anu-bandha vowel	—	—	—	—	—	—	—	—
,,	Anudātta anu-bandha	Anudātta anu-bandha	—	—	1 *ai*	—	—	2 *i*	2 *i*	*ṁ*
,,	Svarita vowel Anuban-dha vowel	Svarita vowel anu-bandha vowel	—	—	*ñ*	—	—	2 *ī*	2 *ī*	*ñ*
		Anudātta root vowel				—	—	—	Anusvāra	2 *au*

The type of Anubandha	Anubandha	DHĀTUPĀṬHAS								
		P	Śa	C	J	Kk	Kt	Śā	H	V
Letters	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	2*t*
,,	*ā*	*ā*	*ā*	*ā*	*ā*	*ā*	*ā*	*ā*	*ā*	*ā*
,,	1 *i*	1 *i*	1 *i*	1 *i*	1 *i*	1 *i*	1 *i*	1 *u*	1 *u*	1 *i*
,,	2 *i*	Anudātta anubandha vowel	—	—	1 *ai*	—	—	2 *i*	2 *i*	*ṅ*
,,	*ir*	*ir*	*ir*	*ir*	*ir*	*ir*	*ir*	1 *ṛ*	1 *ṛ*	*ir*
,,	1 *ī*	1 *ī*	1 *ī*	1 *ī*	1 *ī*	1 *ī*	1 *ī*	2 *ai*	2 *ai*	1 *ī*
,,	2 *ī*	Svarita anubandh vowel	—	—	*ñ*	—	—	2 *ī*	2 *ī*	*ñ*
,,	1 *u*	1 *i*	1 *i*	1 *i*	1 *i*	1 *i*	1 *i*	1 *u*	1 *u*	1 *i*
,,	2 *u*	2 *u*	2 *u*	2 *u*	2 *u*	2 *u*	2 *u*	1 *ū*	1 *ū*	2 *u*
,,	1 *ū*	2 *u*	2 *u*	2 *u*	2 *u*	2 *u*	2 *u*	1 *ū*	1 *ū*	2 *u*
,,	2 *ū*	2 *ū*	2 *ū*	2 *ū*	2 *ū*	2 *ū*	2 *ū*	1 *au*	1 *au*	2 *ū*
,,	*ṛ*	*ṛ*	*ṛ*	*ṛ*	*ṛ*	*ṛ*	*ṛ*	*ṛ*	*ṛ*	*ṛ*
,,	1 *ṝ*	*ir*	*ir*	*ir*	*ir*	*ir*	*ir*	1 *ṝ*	1 *ṝ*	*ir*
,,	2 *ṝ*	—	—	—	—	—	—	—	—	2 *ṝ*
,,	*ḷ*	*ḷ*	*ḷ*	*ḷ*	*ḷ*	*ḷ*	*ḷ*	*ḷ*	*ḷ*	*ḷ*
,,	*e*	*e*	*e*	*e*	*e*	*e*	*e*	*e*	*e*	*e*
,,	1 *ai*	—	Anudātta anubandha vowel	—	1 *ai*	—	—	2 *i*	2 *i*	*ṅ*

The type of Anubandha	Anubandha	DHĀTUPĀṬHAS								
		P	Śa	C	J	Kk	Kt	Śā	H	V
Letters	2 *ai*	1 ī	1 ī	1 ī	1 ī	1 ī	1 ī	2 *ai*	2 *ai*	1 ī
,,	3 *ai*	—	—	—	—	—	—	—	—	3 *ai*
,,	*o*	*o*	*o*	*o*	*o*	*o*	*o*	*o*	*o*	*o*
,,	1 *au*	2 ū	2 ū	2 ū	2 ū	2 ū	2 ū	1 *au*	1 *au*	2 ū
,,	2 *au*	Anudātta root vowel	—	—	2 *au*	—	—	—	Anusvāra	2 *au*
,,	1 *k*	1 *k*	1 *k*	1 *k*	1 *k*	1 *k*	1 *k*	1 *k*	—	—
,,	2 *k*	—	—	—	—	—	—	—	2 *k*	1+1 *i*
,,	3 *k*	—	—	—	—	—	—	—	1 *ṇ*	3 *k*
,,	*ki*	—	—	—	—	—	—	—	—	*ki*
,,	*kṣ*	—	—	—	—	—	—	—	—	*kṣ*
,,	1 *g*	*ñ*	*ñ*	*ñ*	*ñ*	*ñ*	*ñ*	*ñ*	1 *g*	*ñ*
,,	2 *g*	—	—	—	—	—	—	—	1 *ś*	2 *g*
,,	*gi*	—	—	—	—	—	—	—	—	*gi*
,,	*gh*	—	—	—	—	—	—	—	—	*gh*
,,	*ṅ*	*ṅ*	*ṅ*	*ṅ*	*ṅ*	*ṅ*	*ṅ*	*ṅ*	*ṅ*	*ṅ*
,,	*c*	—	—	—	—	—	—	—	*c*	1 *y*
,,	*j*	—	—	—	—	—	—	—	—	*j*
,,	*ñ*	*ñ*	*ñ*	*ñ*	*ñ*	*ñ*	*ñ*	*ñ*	1 *g*	*ñ*
,,	*ñi*	*ñi*	*ñi*	—	*ñi*	*ñi*	*ñi*	*ñi*	*ñi*	*ñi*
,,	1 *ṭ*	1 *ṭ*	1 *ṭ*	1 *ṭ*	1 *ṭ*	1 *ṭ*	1 *ṭ*	1 *ṭ*	1 *ṭ*	—
,,	2 *ṭ*	—	—	—	—	—	—	—	2 *ṭ*	*n*
,,	*ṭu*	*ṭu*	*ṭu*	*ṭu*	*ṭu*	*ṭu*	*ṭu*	*ṭu*	*ṭu*	*ṭu*
,,	*ḍu*	*ḍu*	*ḍu*	*ḍu*	*ḍu*	*ḍu*	*ḍu*	*ḍu*	*ḍu*	*ḍu*

The type of Anubandha	Anubandha	DHĀTUPĀṬHAS								
		P	Śa	C	J	Kk	Kt	Śā	H	V
Letters	1 *ṇ*	—	—	—	—	—	—	—	1 *ṇ*	3 *k*
,,	2 *ṇ*	2*ṇ*	2 *ṇ*	2 *ṇ*	2*ṇ*	2 *ṇ*	2 *ṇ*	2 *ṇ*	2 *ṇ*	—
,,	3 *ṇ*	3 *ṇ*	3 *ṇ*	3 *ṇ*	3 *ṇ*	3 *ṇ*	3 *ṇ*	3 *ṇ*	1 *m*	—
,,	4 *ṇ*	—	—	—	—	—	—	—	—	4 *ṇ*
,,	1 *t*	—	—	—	—	—	—	—	1 *t*	2 *ś*
,,	2 *t*	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	2 *t*
,,	*d*	—	—	—	—	—	—	—	2 *y*	*d*
,,	*dh*	—	—	—	—	—	—	—	1 *p*	*dh*
,,	*n*	—	—	—	—	—	—	—	2 *ṭ*	*n*
,,	1 *p*	—	—	—	—	—	—	—	1 *p*	*dh*
,,	2 *p*	2 *p*	2 *p*	2 *p*	2 *p*	2 *p*	2 *p*	1 *v*	1 *v*	—
,,	3 *p*	—	—	—	—	—	—	—	—	3 *p*
,,	*bh*	—	—	—	—	—	—	—	—	*bh*
,,	1 *m*	3 *ṇ*	3 *ṇ*	3 *ṇ*	3 *ṇ*	3 *ṇ*	3 *ṇ*	3 *ṇ*	1 *m*	—
,,	2 *m*	2 *m*	2 *m*	2 *m*	—	2 *m*	2 *m*	—	—	2 *m*
,,	*mi*	—	—	—	—	—	—	—	—	*mi*
,,	1 *y*	—	—	—	—	—	—	—	*c*	1 *y*
,,	2 *y*	—	—	—	—	—	—	—	2 *y*	*d*
,,	*r*	—	—	—	—	—	—	—	—	*r*
,,	*l*	—	—	—	—	—	—	—	*k*	*l*
,,	*li*	—	—	—	—	—	—	—	*k*	*li*
,,	*lu*	—	—	—	—	—	—	—	—	*lu*
,,	1 *v*	2 *p*	2 *p*	2 *p*	2 *p*	2 *p*	2 *p*	1 *v*	1 *v*	—
,,	2 *v*	—	—	—	—	—	—	—	—	2 *v*
,,	1 *ś*	—	—	—	—	—	—	—	1 *ś*	2 *g*
,,	2 *ś*	—	—	—	—	—	—	—	1 *t*	2 *ś*
,,	*śi*	—	—	—	—	—	—	—	—	*śi*
,,	*ṣ*	*ṣ*	*ṣ*	*ṣ*	*ṣ*	*ṣ*	*ṣ*	*ṣ*	*ṣ*	*ṣ*

over diphthongs; and in simple vowels, to shorter vowels over the longer ones. Again, in choosing between vowels of equal quantity (both short, or both long), the tendency would be to pick up that vowel which came first in the order of the alphabet — a perfectly natural procedure which is expressed in the Sanskrit maxim *prathamopasthitasya tyāge mānābhāvaḥ* or in the English 'first came, first served'.

After this brief statement of the general policies behind the selection of the Anubandhas, and behind the sequence (apparently followed) in taking up the denotations as also the symbols (i.e., the Anubandhas) for linking them together, let us now get down to the brass tacks. It is already said above that the presence or the absence of the union-vowel (*iḍāgama*) and the voice (*pada*) claimed Pāṇini's attention first. Of these two, he seems to have taken up the question of the union-vowel first. Looking out for the shortest device Pāṇini seized upon the root-vowel. Every root must have a vowel somewhere, either at the beginning, or at the end, or in the middle; or, as in some rare cases like that of √*i*, the root must consist solely of a vowel. Pāṇini decided to make use of this root-vowel by modifying it in some way and thus turn it into a technical device. As to the modification, changing the quantity of the root-vowel was not to be thought of, as it would have resulted in no end of confusion. Nasalizing the root-vowel was also out of question, since an Anunāsika vowel in the Pāṇinian system is technically called *it* (P 1, 3, 2) and accordingly would have to be dropped out (P 1, 3, 9). The only modification left available was therefore in the form of accenting. Of the three types of accents the udātta naturally suggested itself first. Now out of the 1545 roots in the P. Dh. in which accents are used in connection with the union-vowel, as many as 1258 are seṭ, while 287 are aniṭ. The larger group of the seṭ roots therefore came first and to it was assigned the first available technical-device, viz., the udātta accent on the root-vowel. The remaining group, viz., that of the aniṭ roots, was given the next symbol, viz., the anudātta accent on the root-vowel.[24]

The next item on the list must have been, as said above, the indication of the voice. Since the only element available in the root was now already used, additional elements had to be affixed. Here another new factor comes in. The whole class of consonantal roots (a little above 1600) already required addition of some vowel in order to prevent their final consonant

24. It must be noted here that the accents have been included here in the list of Anubandhas to be explained only in so far as they are a part of the technique, and are replaced by the proper accents in the actual language. Strictly they are not Anubandhas or *its* as defined and enumerated by Pāṇini in 1,3,2-8.

from being technically called *it* and from consequently being dropped out.[25] Thus apart from the question of the indication of the voice, a vowel had to be already suffixed to the root. Then why not use the same vowel for the purpose of indicating the voice of the root? Pāṇini therefore seized upon this additional vowel and by furnishing it with different accents he utilized it for the indication of the voice. Out of the total number of about 1327 consonantal roots (all belonging to classes I-IX) whose voice has been thus indicated, 866 are parasmaipadins, 375 ātmanepadins, and 86 ubhayapadins. Taking up the groups in this order (based upon their extent, as usual), and also the accents in their natural order, Pāṇini allotted the udātta accent of the additional vowel (irrespective of its quality or quantity) to the parasmaipada; in the same manner the anudātta and the svarita accents came to indicate ātmanepada and the ubhayapada respectively.[26]

As regards the specific vowels used for the above two-fold general purpose, this much may be said at this stage that in the case of about 956 roots where no other feature was to be indicated by the additional vowel, the vowel used is the first available one, viz., *a*. Where some additional feature had to be indicated by the added vowel, the remaining vowels are used, to which we shall turn in due course.

It is easy to see why here also Pāṇini resorted to accenting. The additional vowel had already to be nasalized, when alone it could be *it*.[27] Also the difference made by the quality and the quantity of the vowel is further utilized by Pāṇini for indicating many other features. This explains the use of accents for the present purpose.

The question of indicating the voice of the roots ending in vowels still remains. To these, as said above, only consonants could be suffixed. Here Pāṇini uses the symbol *ṅ* to indicate ātmanepadin roots (49) and *ñ* to indicate ubhayapadin roots (43); the rest, of course, are parasmaipadins.[28] What made Pāṇini choose these two very consonants is difficult to say. It is, however, just probable that the circumstance that these are the only two consonants of the alphabet which do not appear as the actual final of any root in P. Dh. might have been responsible for the choice.

We now pass on to the rest of the features which concern more or less only limited numbers of roots. As many of these features pertain, in the majority of cases, to the consonantal roots, vowel-Anubandhas suited

25. P 1,3,3,; 9.
26. For a different explanation, see CHATTERJI, *Technique*, p. 135
27. P 1,3,2.
28. P 1,3,78.

them. We have already seen that all the consonantal roots require some vowel to be suffixed to them for preserving their final consonant; and that, besides discharging this function by its mere position, it also indicates the voice in which the root is usually conjugated by means of the accent which it carries in the system. A third function is now assigned to these additional vowels. The quality and the quantity of these additional vowels were now harnessed for indicating these features while the vocalic roots sharing these features were either enumerated in the sūtrap. or they were indicated in some other manner. Out of the 13 vowels, *a* was already used, and Pāṇini does not utilize *ai* and *au* at all. We therefore take up the first twelve features in the descending order of their frequency. Below are arranged these groups, along with their respective strengths and the Anubandhas assigned to them, which will help us see how far our premises regarding the plan in the selection of the Anubandhas were right. (It must be made clear here that the frequency or the extent of a particular feature is determined, for the present purpose, not by the actual number of roots affected by it, but only by that number of roots to which the Anubandha concerned is actually affixed. Thus roots whose participation in a particular feature is taught by actually enumerating those roots in the sūtrap., or by means of a group or in some other way are excluded here).

Feature	Strength	Anubandha
(1) The stable penultimate nasal	233 roots	*i*
(2) No shortening of the radical vowel in the reduplicated Aorist	146 roots	*ṛ.*
(3) Optional insertion of the union-vowel *-i-* in the gerundives in *-tvā* ..	109 roots	*u*
(4) Absence of the union-vowel *-i-* in the ppl.	58 roots	*ī*
(5) Optional absence of the union-vowel *-i-* in general	25 roots (veṭ)	*ū*
(6) Optional formulation of the Aorist-stem with a weak *a*	25 roots	*ir*
(7) Formation (necessarily) of the Aorist-stem with the weak *a* in the parasmaipada	17 roots	*ḷ*
(8) Preservation of the short quantity of the radical *a* in the *iṣ*-Aorist	15 roots	*e*
(9) Formation of pp. with *-na*	15 roots	*o*
(10) Absence of the union-vowel *-i-* in the ppl. but optional insertion of the same in connection with an impersonal act, or the beginning of an action	14 roots	*ā*

It will be seen that these results generally confirm the expected pattern outlined above in respect to the sequence in which the denotations (i.e., the features) on the one hand and the letters serving as Anubandhas on the other were taken up. In the case of the Anubandhas, the short vowels have come up first,[29] then the corresponding long vowels, and lastly the diphthongs. There are, however, a few points which do not fit in with our scheme. The letters *u* and *ṛ* have interchanged their denotations, for which there is no apparent reason. Perhaps the number of the *ṛdit* roots might have increased after Pāṇini.[30] Then *ḷ*, instead of being taken up after *ṛ*, finds place after the long vowels while its place is taken by the next letter, i.e., *ē*. It is worth considering whether the circumstance that many of the *īdit* roots and in *-y, -cy, -v* and *-rv*, and that their combination with *ḷ* would have been somewhat difficult to pronounce — whether this circumstance might not have been responsible for shifting the letter *ḷ* to a more suitable place. Further, the long *ṝ* is dropped and *ir* is apparently substituted in its place. This has striking resemblance with, and may have been suggested by another point in Pāṇini's technique, viz., the substitution of *ir* in the place of the final *ṝ* of roots as a first step in the process of the concrete formations (P 7, 1, 100; 1, 1, 51[31]). Besides, *ir* with its length of 1½ moras is shorter than *ṝ* consisting of 2 moras. Lastly, having started from *i* and reached *o*, it seems Pāṇini was reluctant to utilize *ai*, apparently owing to its uneconomic quantity, and so he fell back upon the shorter letter *ā* which had been left unutilized.

In the above list there are two pairs, where in every pair the features possess equal strength: the veṭ roots and the roots which optionally form the Aorist-stem with a weak *a* number 25 each; similarly, the roots which

29. Much the same as in the Śiva-sūtras.

30. Kāśikā (under P 7,4,3) remarks, e.g. regarding the Anubandha *ṛ* of the roots *bhrāj* and *bhās* that it is unpāṇinian: *bhrājabhāsor ṛditkaraṇam apāṇinīyam.*

31. It must be recalled here that Pāṇini does not include *ir* in the enumeration of Anubandhas (1,3,2-8). Kātyāyana therefore proposes (Vārtt. 4 to P 1,3,7) to make provision for it but Patañjali (Bhāṣya Vol. I, pp. 263-264) rejects the proposal as being superfluous by advancing a number of alternative explanations. What is pertinent to our present point is that in one of the explanations he suggests that *ir* could be understood as a transformation of *ṝ* itself, which latter is already *it* (P 1,3,2): *atha vā ṝkārasyaiva idam irtvabhūtasya grahaṇam. Tatropadeśe 'janunāsika itītsaṁjñā bhaviṣyati.* On this Kaiyaṭa remarks as follows: *ṝta id dhātor itītve raparatve ca bhidṛ śabde pūrvam ṝkārasyetsaṁjñā tata itvaraparatve. 'Irito vā' ity atrāpi ṝ id asya iti samāse kṛte nipātanād itvaraparatvayoḥ kṛtayor irita iti nirdeśaḥ.* On *anaṅgasya* Nāgeśa further comments: *adhātor ity api bodhyam.*

It may be mentioned here that Śā H substitute *ṝ* in the place of *ir*.

do not lengthen radical *a* the *iṣ*-Aorist and those which form the ppl. with *-na* number 15 each. In the absence of the usual criterion for preference, what was the deciding factor in these two cases? Here the first case seems to be easy enough. *Iḍāgama,* as we have seen above, is a universal feature. The veṭ roots, therefore, got an upper hand over their rival group of roots whose common feature concerns only one tense. In the second pair, however, it is not so easy to see the decisive factor. I might still venture upon a tentative suggestion. The preservation of the short quantity of the root-vowel, affecting as it does the root or the Prakṛti is a nearer or internal feature (*antaraṅga*) as compared with the substitution of *-na* in the place of *-ta* in the ppl., which concerns a suffix and is thus distant or external (*bahiraṅga*); and it is a well known axiom that the *antaraṅga* prevails over the *bahiraṅga.*[32]

I now give the remaining features, arranged in the same way as above :

Features	Strength	Anubandha
(11) The use of the ppl. to denote an action not restricted to a past time	12 roots	*ñi*
(12) Formation of an action noun in *-athu*	12 roots	*ṭu*
(13) Formations of adjectives with *-trima* in the sense *tena nirmitam*	9 roots	*ḍu*
(14) Formation of a feminine action-noun in *ā*	7 roots	*ṣ*
(15) Distinction of √*i* 'remember' and √*hā* 'abandon' from other roots with the same spelling but differing in other respects	2 roots	*k*
(16) The exclusion of the two *dā roots,* viz., *dai* 'purify' and *dā* 'cut' from the rules governing *dā* roots in general ..	2 roots	*p*
(17) Distinction of the roots *i* 'go' and *dā* (I cl.) 'give' from other roots with the same spelling but differing in some other respect	2 roots	*ṇ*
(18) Indicating the feminine form in *-ī* in *stanaṁdhayī* from √*dhā;* or, according to another view, distinction of √*dhe* 'suck' from √*dhā* 'place', nourish'.	1 root	*ṭ*

32. *Asiddhaṁ bahiraṅgam antaraṅge* (*Paribhāṣā* 50).

The first three Anubandhas from this set differ from those in the previous list in two ways: firstly, they consist of whole syllables; secondly, they are invariably prefixed to the root. What is more important for our present purpose is that this whole set of eight Anubandhas is not so 'transparent', as the previous one.

Curiously enough, in order to be able to understand at least some of the above Anubandhas, we have to start with one which is not listed above, viz., *m* (The reason for not listing it above is that it is nowhere actually affixed in the P. Dh. and so it did not count in the matter of ascertaining the relative strengths of the groups.). To the whole body of roots which retain the short quantity of their vowel in the causative stem belongs (with a few exceptions) the whole group of roots in *m* (or *am*). This is noted in the gaṇa-sūtra *janī-jṛṣ-knasu-rañjo'mantāś ca*. Pāṇini evidently took his cue from this circumstance and assigned the symbol *m* to denote this feature.[33] Proceeding on the same lines, it is not improbable that the primary action-nouns like *abhilāṣā, īṣā, tṛṣā, bhāṣā, bhūṣā, varṣā, heṣā, hreṣā* or, perhaps still better, action-nouns from desiderative stems like *cikīrṣā, jigīṣā, jigamiṣā, titīrṣā, bibhīṣā*, etc., suggested the letter *ṣ* for denoting the formation of a feminine action noun in *ā*. Similarly the affinity between the Anubandha *ṭu* and the suffix forming the nouns like *vepathu, bharathu, visphūrjathu* is sufficiently marked to warrant the inference that the Anubandha was most probably modelled, with a slight modification in order to invest it with some individuality, on the actual noun-forming suffix itself. As to the closely allied Anubandha *ḍu*, which indicates the next group, however, it seems to have been coined simply after *ṭu*, and does not appear to have anything to do with its own denotation. As regards the remaining Anubandhas, viz., *ñi, k, p, ṇ* and *ṭ* I have not been able to discover the logic behind their selection.

It now remains only to account for the modifications introduced by some of the later schools in the Pāṇinian system of the Anubandhas. The object behind these modifications is, as will be easily seen, to discontinue the use of accents, which had then become obsolete, and to substitute in their place some easily intelligible Anubandhas. J did this by turning to account letters which P had not utilized. Thus he employed *ai* to denote consonantal ātmanepadin roots and *au* to denote aniṭ roots, while he extended the use of *ñ*, the symbol of the ubhayapada, to the consonantal roots also. Vop. followed J in the use of *au* and the extension of *ñ;* but he also went further and similarly extended the use of *ṅ* to indicate consonantal ātmane-

33. CHATTERJI, *Technique*, p. 134.

padin root also, and utilized *ai* to indicate the *yaj-* group. This use of the additional letters on the part of J V helped to keep intact major part of Pāṇini's scheme and avoid unnecessary confusion.

Śā H did not apparently think it necessary to show this consideration. Taking up the question of the pada first, they employed *i* and *ī* to indicate consonantal ātmanepadin and ubhayapadin roots respectively.[34] This naturally resulted in shifting and re-adjustment of other symbols. The place of *i* (original symbol of the constant nasal) was taken by the next available letter, viz., *u* which, in its turn, now came to be replaced by the next letter, i.e., *ū*. Two vacancies now remained, viz., those of *ī* and *ū* which were filled up respectively with *ai* and *au*. Both of them, further, restored *r̥̄* in the place of *ir*. Vop., on the other hand, retained *ir*, but employed *r̥̄* for a more logical purpose, viz., to indicate optional occurrence of the feature indicated by *r̥*. Lastly, the function of denoting an aniṭ root was now assigned to anusvāra in H.

Besides Vop. H is the only author who has made use of the Anubandhas for the purpose of denoting the Present classes. He has allotted symbols to all the classes except the first, so that a root without any class-denoting symbol is to be automatically understood as belonging to the first. As in the Kt. he has also combined the 2nd and the 3rd class together. He has thus to employ eight symbols only. Of these he takes seven from the initial consonants of the seven series, and for the remaining (*cur-*) class he uses *ṇ* (evidently taken from *ṇic* which forms the Present stem of the cur-class):

k: 2nd + 3rd (*ad-* + *hu-*) class
c: 4th (*div-*) class
ṭ: 5th (*su-*) class
t: 6th (*tud-*) class
p: 7th (*rudh-*) class
y: 8th (*tan-*) class
ś: 9th (*krī-*) class
ṇ: 10th (*cur-*) class

34. The order of vowels in H is different from the one in P as seen in the Śivasūtras. Cf. *a ā i ī u ū r̥ r̥̄ l̥ l̥̄* (samānāḥ)—Laghuvr̥tti to H 1,1,7. In his *varṇasamāmnāya*, Śā. follows P as far as vowels are concerned. Here, however, he seems to have followed the other order.

It will be recalled that other grammarians had used *p* to distinguish two *dā* groups from each other and *ṇ* to distinguish similarly different *i* and *dā* roots. As H has used these two symbols for other purposes as seen above, he probably thought it advisable to find out substitutes for them. In the place of *p* of others he substitutes *v*, which had been already used by *Śā*. for the identical purpose.[35] For *ṇ* H substitutes *m* (for which purpose *Śā*. does not use any Anubandha).

Finally, Vop. has his own set of Anubandhas for denoting the Present classes, their sub-classes and other groups. I have already explained fully, in the Introduction (pp. XXV-XXVIII) to Kavikalpadruma, the rationale behind these Anubandhas, which need not be repeated here.

35. H uses *v* in the place of P's *p* elsewhere also: Cf. the sing. endings of the Pres. indicative in the parasmaipada: *miv, siv, tiv* (all in H 3,3,6), the Vikaraṇa *śav* (H 3,4,71) etc. Śā. however has retained *p* in these cases.

CHAPTER IV

MEANINGS: THEIR SURVEY IN THE PRE-ARTHAPĀṬHA GRAMMATICAL LITERATURE

IV

MEANINGS : THEIR SURVEY IN THE PRE-ARTHAPĀṬHA GRAMMATICAL LITERATURE

The Dhātupāṭhas, as has been already mentioned more than once, are not bare lists of roots. The roots have been furnished with meanings also. With the exception of two Dhātupāṭhas—viz. the Cāndra which has retained, as a rule, only one meaning for every root, and the Kavikalpadruma, where the choice of words was governed by the exigencies of the metre, the Dhātupāṭha being in the metrical form—all the Dhātupāṭhas exhibit more or less the same set of meanings. This set of meanings, which is thus common to almost all the Dhātupāṭhas, also appears in the oldest extant Dhātup. i.e. the Pāṇinian one as it stands at present.

But, according to the Indian tradition, the dhātup. as it proceeded from Pāṇini did not contain meanings. Kaiyaṭa, commenting upon the Bhāṣya to the Vārttika 2 under P 1.3.1 characterises the set of meanings as apāṇinīya.[1] He further adds that the meanings have been admitted in the dhātup. by scholars—meaning successors of Pāṇini—merely to indicate in a general way the meanings of roots. Commenting on this passage Nāgeśa specifically mentions the name of Bhīmasena as being traditionally credited with the work of having assigned the meanings.[2] Haradatta also remarks in a similar vein, calls the set of meanings *anārṣa* (i.e. apāṇinīya) and expressly says that it is a work of a later age (*uttarakāla*).[3] Lastly, commenting in the Kaumudī on the dhātusūtra *'daṁśa daśane'* (P. Dh. I. 1038), Bhaṭṭoji has occasion to remark that the assignment of meanings is a modern (*ādhunika*) affair.[4]

This traditional view regarding meanings is not a mere myth. It is substantiated by independent evidence also. Kātyāyana's second Vārttika to P 1.3.1 reads *'parimāṇagrahaṇaṁ ca.'* Patañjali explains this thus : 'It should be taught that such and such unit gets the nomenclature dhātu; for

1. *'Na cārthapāṭhaḥ paricchedakaḥ, tasyāpāṇinīyatvāt, abhiyuktair upalakṣaṇatayopāttatvāt'.*

2. *'Abhiyuktair iti. Bhīmasenenety aitihyam'.*

3. *'Na ca prāpaṇādir artho niyāmako'nārṣatvāt, abhiyuktair uttarakālanirdiṣṭatvāt'.*

4. *'Daśanaṁ daṁṣṭrāvyāpāraḥ. pṛṣodarāditvād anunāsikalopaḥ. ata eva nipātanād ity eke. tasyāpy atraiva tātparyaṁ, arthanirdeśasyādhunikatvāt.*—Cf. also Bālam.: *bhū sattāyām iti. ..... tatra bhū ity eva pāṭhaḥ. arthanirdeśas tv ādhunika iti vakṣyate.*— Vide also Śabdakaustubha under P 1.3.1.

how else (could it be determined) that the sound-unit *bhū* gets the nomenclature dhātu and not the sound-unit *bhvedha*?'[5] It will be seen at once that the remark of Kātyāyana would become meaningless if the Dhātup. at the time of Kātyāyana had been in the same form as we see it, where generally every root is separated from the preceding and the following root by the intervening meanings. Had the meaning sattāyām followed the root bhū in the dhātup. which Kātyāyana had before him there was no occasion whatsoever for *bhvedha* being misunderstood as one root.[6] The significance of Kātyāyana's remark becomes clear when we also take into consideration the circumstance—a circumstance which this Vārttika itself hints at—viz. that the roots were read by Pāṇini in the Saṁhitā form, i.e. they were joined together by the rules of saṁdhi and that even where there was no saṁdhi they were not separated by a *daṇḍa*, as for instance in the Padapāṭha.

Since Patañjali does not bring in the point of meanings as a reply to Kātyāyana's objection it is clear that in his days also the roots had not yet been furnished with the meanings. By an examination of all those places in the Bhāṣya where roots happen to be mentioned along with their meanings, and by a comparison of these meanings with those given in the dhātup., Liebich[7] has proved that Patañjali does not cite the meanings as they appear in the dhātup. In other words the present set of meanings was not known to Patañjali. For had it existed as a part of the dhātup. it is reasonable to expect that Patañjali would have cited those very meanings, as we find later writers invariably doing. The meanings, therefore, came to be added after Patañjali. Once, however, they found their way into the Pāṇinian dhātup., the other dhātupāṭhas which came later adopted them as a matter of course. Candra was the first among grammarians belonging to other schools to have made use of this set of meanings although he has abbreviated it and has retained as a rule only one meaning for a root. As Candra flourished sometime in the middle of the fifth century A.D., it may be taken that the dhātup. came to be furnished with the meanings at the hands of Bhīmasena sometime in the early centuries of the Christian era.

It might be asked why Pāṇini did not state the meanings of the roots, particularly when we find that all of his successors have incorporated the meanings in the dhātup., and that among his predecessors Yāska — who,

5. *'Parimāṇagrahaṇaṁ ca kartavyam. iyān avadhir dhātusaṁjño bhavatīti vaktayam. kuto hy etad bhū- śabdo dhātusaṁjño bhaviṣyati, na punar bhvedhaśabda iti?'*

6. Liebich, *Einführung* II, 64, remarks that the objection about the difficulty of splitting the dhātup. into individual roots might have indirectly given impetus to the addition of meanings in the dhātup. since such an insertion incidentally removed the above difficulty.

7. Kṣīrataraṅginī, pp. 244-247.

though not a grammarian as such, had worked in an allied field—whenever he mentions a root, almost invariably mentions it along with its meaning. To this the reply is that the proper function of Grammar is to analyse the structure of a given language. Expounding the meanings of vocables is not strictly in its field. With the Nirukta it was a different thing. It was primarily concerned with explaining certain Vedic words. Yāska's method was to trace every such word to some verbal root and to base his explanation of the particular word on the meaning which the root was generally believed to denote. Yāska always emphasises that a sound etymology should not depend only on the resemblance of sound, but there must be a connection of a common meaning.[8] This being the case Yāska was obliged to state the meaning of the root every time he sought to derive some word from it. The object of Pāṇini, on the other hand, was only to resolve the words to the stems and endings, and so stating the meaning of the roots—the fundamental stems—was not in his line. Once, however, the meanings found a hospitable refuge in the dhātup. at the hands of Bhīmasena, it came to be regarded as an integral part of the dhātup. and the later dhātupāṭhas had to follow suit.

It need not however be supposed that Bhīmasena coined these meanings for the first time. Probably—at least in the case of the more frequent roots—the meanings were handed down by tradition although there was no authorised text as such and all that Bhīmasena did was to collect them and, probably with some additions, admit them into the body of the dhātup.[9] There is reason to suppose that there was some such tradition about meanings. Thus under P 1.3.1 Vā. 7 Patañjali thus illustrates his view that roots have often more than one meaning: "*√vap* (which) has been noticed in the sense of 'scattering', also denotes 'cutting'.... *√īḍ* (which) has been noticed in the sense of 'praising', 'enjoining' and 'supplicating', also denotes 'directing', ... *√kṛ* (which) has been noticed in the sense of 'producing something which did not exist (previously)', also denotes 'cleansing'."[10] It will be easily seen that in each of the above sentences a definite antethesis is intended. The first part states that a particular meaning of the root concerned is 'noticed' or 'noted' (*dṛṣṭa*) whereas the second part states that in the actual language the root also denoes (*vartate*[11]) some other meaning, although this

8. Cf. e.g. *arthanityaḥ parīkṣeta* (Nir II, 1).

9. Cf. LIEBICH, *Einführung* II, 64.

10. *Na cedaṁ nāsti bahvarthā api dhātavo bhavantīti. tad yathā: vapiḥ prakiraṇe dṛṣṭaś chedane cāpi vartate ..... īḍiḥ stuticodanāyācñāsu dṛṣṭaḥ preraṇe cāpi vartate .... karotir abhūtaprādurbhāve dṛṣṭo nirmalīkaraṇe cāpi vartate ..... nikṣepaṇe cāpi vartate'* (Bh. Vol. I, p. 256). The passage is repeated, with slight variations, under P 6,1.1 Vā. 4 (Bh. Vol. III, p. 14) and P 6.1.3 Vā. 6 (Bh. Vol. III, p. 36).

11. Once also *dṛśyate*.

latter does not happen to be noticed. Here only three roots have been incidentally cited but what applies to these three individual cases must also apply to the whole body of roots and so we might take it that already at the time of Patañjali there was some traditional assignment of meanings.

It would seem that before Bhīmasena, when the teacher taught the dhātup. along with the Sūtrap. to the pupils, he gave them some idea of the meanings of the roots—at least of the more important ones—although there was no authorised text as such. It is also possible that in many cases the meanings differed, and also varied in number, from scholar to scholar. Probably Bhīmasena thought that it would be a good idea to collect these floating meanings, so that the meanings would be preserved and that his version would serve as a sort of reference book. Incidentally, this supposition also accounts for the divergencies in the number of meanings assigned to the different roots—ranging from one to as many as nineteen. It is therefore more than probable that though the present text of the meanings was constituted first by Bhīmasena, the individual meanings go back to a distant past, some of them to Pāṇini's time and some even further back.

That Bhīmasena did not coin the meanings anew but admitted into the dhātup. mostly the meanings which had come down traditionally can be confirmed by citing parallel passages from older works. To cite a few cases from the Bhāṣya: *prā pūraṇe* (P. Dh. II, 52) is confirmed by *prātiḥ pūraṇakarmā* (P. 3.4.32 Bh.), *aśū vyāptau* (Dh. V, 18) by *aśnotir vyāptikarmā* (P 6.1.9,4 Bh.), *rā dāne* (P. Dh. II, 48) by *rāter dānakarmaṇaḥ* (P 6.1.45.6 Bh.) etc. Similarly *īha ceṣṭāyām* (P. Dh. I, 663) might have been suggested by the sentence *kā punar īhā? ceṣṭā* (P 1.3.1.2 Bh.), and *ṣṭhā gatinivṛttau* (P. Dh. I, 975) by the sentence *tiṣṭhatīti vrajikriyāyā nivṛttiḥ* (1.3.1 Vā. 7 Bh.). We can go further back to Pāṇini's Aṣṭādhyāyī and find e.g. that *śliṣa āliṅgane* (P. Dh. IV, 77) is corroborated by *śliṣa āliṅgane* (P 3.1.46), and *takṣū tanūkaraṇe* (P. Dh. I, 685), by *tanūkaraṇe takṣaḥ* (P. 3.1.76). Similarly the division of sound into articulate (*vyakta*) and inarticulate (*avyakta*) which we find in the dhātup. is already met with in P 1.3.48; 5.4.57 and 6.1.97. Further, *drā kutsāyāṁ gatau* (P. Dh. II, 45) goes back to *drātīti gatikutsanā* in the Nirukta (2.3), not to mention roots like *ay, i, iṣ, īṅkh, ṛ, ṛṇ, kas, gam, gā, cyu, dram, dhanv* etc. which are given with the meaning *gati* both in the dhātup. on the one hand and Nighaṇṭu or Nirukta on the other. These instances might be taken as sufficiently indicative of a tradition in this matter.

It is believed by some—and not entirely without justification—that Pāṇini himself must have written a vṛtti on his Aṣṭādhyāyī which he taught orally when he explained his rules to his pupils. A similar statement of meanings can be presumed to some extent in the case of the dhātup. also. It need not, however, be supposed that there was any rigid insistence on those

meanings. In fact it was admitted on all hands that the roots generally betrayed a variety of meanings. Only the prominent meanings, therefore might have been taught and these too, as has been said above, might have differed from school to school, or from scholar to scholar. The meanings were thus in a fluid state and in this condition they were handed down from generation to generation. New meanings could of course be added to the older stock when they were met with in the actual language as we saw in the above extract from the Bhāṣya. Even after Bhīmasena had compiled his text of the meanings, these were never regarded as the last word in the matter, and we often see commentators pointing out some meaning not mentioned in Bhīmasena's text.[12]

One thing regarding this collection of meanings by Bhīmasena may be noted. He did not ransack all the existing grammatical literature with a view to hunting out the maximum number of meanings. One or two glaring instances will make the point clear. In 1.3.32-34 Pāṇini mentions nine meanings in connection with which (and, in some of these cases, in combination with certain prefixes) the root *kṛ* takes Ātmanepada endings. In the same context Pāṇini mentions seven meanings of the root *nī* in 1.3.36. But to both of these roots the dhātup. assigns only one meaning each. Similarly in his Bhāṣya to the Vārttika 7 under P 1.3.1 Patañjali mentions three meanings of the root *īḍ*, but the dhātup. gives only one of these. It is therefore clear that Bhīmasena contented himself with reproducing those meanings which were generally known traditionally, without making a deliberate search of the available literature.

Having seen that the *arthapāṭha* is later than Patañjali in form though its contents, i.e. the individual meanings, go back to a very old time we can now pass on to an analysis of the meanings in the dhātup. This analysis will be twofold: 1 formal, i.e. from the point of view of the form or the manner in which meanings are stated, and 2 material, i.e. concerning the matter or the contents in their various aspects. Before, however, we actually pass on to such an analysis it will be better to take a brief survey of the pre-arthapāṭha linguistic literature restricting its scope to the meanings of roots with particular reference to the above-mentioned two points of view.

The Nighaṇṭu

The Nighaṇṭu commented upon by Yāska in his Nirukta is the oldest extant systematic attempt in stating the meanings of nouns and verbs. The method here followed is to group the synonymous nouns and verbs and to

12. Cf. the section on the addition of meanings in the sixth chapter.

state that so many nouns have such and such meaning; so many verbs have such and such meaning. As regards the verbal roots there are 15 groups of verbal forms which are: *attikarmāṇaḥ, adhyeṣaṇākarmāṇaḥ, arcati°, aiśvarya°, kānti°, krudhyati°, gati°, jvalati°, dāna°, paricaraṇa°, paśyati°, yācñā°, vadha°, vyāpti° and svapitikarmāṇaḥ.*

Here the second part in each case, i.e. the term used in the sense of 'meaning' of a verbal root is *-karman* 'action' instead of the later *-artha* which is there used with reference to both nouns and verbs. The term -karman is significant enough since a verbal root must always denote some sort of an action (in a few cases some state). The first part which states the meaning is in 9 cases an action noun or abstract noun like *adhyesaṇā, aiśvarya* etc. In six cases it is apparently a verbal form, like *atti, arcati* etc. Now the use of the 3rd pers. sing. present to represent a root is common enough; but the same to represent the meaning is unheard of. I therefore think that by words like *atti arcati* (in *attikarmāṇaḥ* etc.) we have to understand $\sqrt{ad}$, $\sqrt{arc}$ etc. The expression *attikarmāṇaḥ*, e.g., when fully dissolved would mean *atteḥ* (=*ad-dhatoḥ*) *karma iva karma yeṣāṁ te* '(roots) having the same meaning (lit. denoting the same action) as that of $\sqrt{ad}$.'

Usually a root appears only in one group, i.e. only one meaning is assigned to it. But occasionally a root is found to appear in more than one group. Thus the root *aś* appears against both *vyāpti* and *adhyeṣaṇā*, the root *inv* against *gati* and *vyāpti*, the root *chand* against *arcati* and *kānti* etc.

A point regarding vocabulary may be noted in passing. In the later works *arcati* usually gives place to *stuti* or *pūja, vadha* to *hiṁsā, paricaraṇa* to *sevā*, and *jvalati* to *dīpti*.

The Nirukta

In Yaska's Nirukta we find the stock of meanings considerably increased. Sporadic changes in the manner of stating meanings are also met with. The total number of meanings added here for the first time comes to a little over than 60. They are:

(1) The meanings in *-karman*:

apatrapaṇa, aślāghā, ākrośa, āpnoti, āśleṣa, utsāha, upadayā, karoti, krodha, khanati, khādati, gaticalā, girati, gṛṇāti, gṛhṇāti, carcati, jīvana, tṛpti, dahati, dhārayati, namati, nivāsa, pūjā, prakāśayati, prasādhana, prīti, prepsā, bhedana, miśrībhāva, mṛdūbhāva, modati, lamba, vibhāga, visarjana, vṛddhi, śabda, śītībhāva, śrayati, saṁyamana, saṁstambha, samardhayati, saraṇa, siñcati, stuti, spṛśati, sravati, hanti, harati, hiṁsā.

(2) Meanings stated with an action noun in the locative:

nāśane, paricaryāyām, manasvībhāve, vaśagamane, vimocane and *spardhāyām.*

(3) Meanings in *-artha*:

kṣaya, gṛṇāti, dadhāti, lavana and *śuddhi.*

(4) Miscellaneous:

(i) *kaṇatiḥ śabdāṇūbhāve bhāṣyate.*

(ii) *knopayati snehayati.*

(iii) *drātīti gatikutsanā.*

It will be seen that in the Nirukta also the use of the term *-karman* is still preponderating. It has even spread to non-verbal words. Thus regarding an indeclinable like *cit* or *nu* Yāska says that it is '*anekakarmā*' (Nir. 1.4). The use of the word *-artha* instead of *-karman* also makes its appearance here. We also see here the beginning of the third mode, which is exclusively used later on, viz., to drop the word *-karman* or *-artha* altogether and to use the noun alone in the locative. In this respect the instances *gṛṇātyarthe, dadhātyarthe* and *lavanārthe,* which make use of both the word *-artha* and also the locative case deserve attention. The use of locative alone might have arisen by rejection of the word *-artha* and retention of the locative.

There is no predicate for these nouns in the locative like *nāśane, paricaryāyām,* etc. We have evidently to supply here the verb *vartate* as we find Patañjali and later grammarians doing. Thus *cātayatir nāśane vartate,* etc. But one wonders whether it was the predicate *bhāṣyate* that was intended by Yāska, as we find it, e.g., in the passage *kaṇatiḥ śabdāṇūbhāve bhāṣyate* (Nir. 6.30) or in *vīti cakadra iti śvagatau bhāṣyate* (2.3).

Yāska has noticed that some verbs denote some state and not an action. In the case of such meanings he adds the word *bhāva.* Thus *kaṇatiḥ śabdāṇūbhāve* (quoted above), *manasyatir manasvībhāve* (2.7); (with *-karman*) *gadhyatir miśrībhāvakarmā* (5.15), *vrandater mṛdūbhāvakarmaṇaḥ* (5.15), etc. (Incidentally, in these latter cases where *-karman* follows a meaning in *-bhāva* it is evident that the term *-karman* has already lost its original meaning and has come to be used mechanically in the sense of 'meaning'.)

The use of *stip* — 3rd pers. sing. present — to represent meanings is still common, although it is considerably on decline. Thus we have *āpnoti-*

karmā, karoti,° *khanati,*° etc. The proportion of such verbal forms to the action nouns comes to about 1 : 2, whereas in the Nighaṇṭu it is 2 : 3.

Coming to the contents, there are in all about 78 meanings, i.e., there is a rise of about 63 meanings over those in the Nighaṇṭu. Among the roots explained here, there are 61 which are common to the Nighaṇṭu. Of these 61, in 35 cases the meanings are identical with those in the Nighaṇṭu; in 4 cases, besides the meanings already given by the Nighaṇṭu, Yāska adds some more; and in the remaining 22 cases the meanings differ from Nighaṇṭu's. In the cases where the Nigh. and the Nir. differ, the meanings in the Nirukta are generally more precise and also usually agree with those in the dhātup. Thus the Nir. has *aniter jīvankarmaṇaḥ* (XI.47; *an prāṇane* P.Dh. II, 61) against *aniti gatikarma* (Nigh. II.14); *jinvatiḥ prītikarmā* (VI. 22; *jinv prīṇanārthaḥ* P. Dh. I,625) against *jinvati gatikarmā* (Nigh. II.14); *rasateḥ śabdakarmaṇaḥ* (II.25; *rasa śabde* P. Dh. I,657) against *rasati arcatikarmā* (Nigh. III.14), etc.

In another direction also Yāska shows some improvement. In two or three cases Yāska happily mentions a specific shade of meaning. Thus instead of simply assigning the sense of *gati* in general to √*drā* (as the Nigh. does) Yāska says *drātīti gatikutsanā* (cf. *drā kutsāyāṁ gatau* P. Dh. II,45) and *vīti cakadra iti śvagatau bhāṣyate* (2.3). Regarding √*kaṇ* he says that it denotes an indistinct or faint sound. Here Yāska has probably the moaning sound of the suffering person in mind, since commenting on *kaṇ śabdārthaḥ* (P. Dh. I, 476) Kṣ. remarks : *kaṇitam ārte* (i.e., *ārtaśabde*) *(rūḍham)*.

Yāska often assigns two or even three meanings to a root. And at least in the case of two roots, viz., *day* and *vī* he remarks specifically that they have more than one meaning. *'dayatir anekakarmā : upadayākarmā... dānakarmā vā, vibhāgakarmā vā.....dahatikarmā'* (Nir. III,17; cf. *'daya dānagatirakṣaṇahiṁsādāneṣu'* (P. Dh. I, 510). *'vyanta ity eṣo'nekakarmā..... paśyatikarmā.....khādatikarmā'* (III, 19); *'veter.....gatikarmaṇaḥ'* (I, 7) (II, 6). Cf. with this the dhātup. meanings *'gatiprajanakāntyasanakhādaneṣu'* (P. Dh. II, 39) and particularly Whitney's remark 'A very perplexing root in its variety of meanings.'[13] These instances might be taken as representing the germs of the later doctrine of the 'plurality of meanings of verbal roots' — *dhātūnām anekārthatva.*

Lastly, two instances of peculiar vocabulary may be noted. *'upadayā* (IV, 17; X, 16) and *gaticalā* (IV, 3) do not seem to have occurred anywhere in the later literature.

13. *Roots*, p. 162.

Aṣṭādhyāyī

In his Aṣṭādhyāyī, Pāṇini had a number of occasions to refer to certain meanings of certain roots. Thus in 1. 2. 15-16, 20 he mentions some meanings in connection with which the suffix *sic* in the Ātmanepada coming after roots *yam* and *mṛṣ* is treated as though it were *kit;* sūtras 1.3.20-87 give a number of meanings in connection with which certain roots are restricted to a particular voice; sūtras 3.1.46, 65, 76 refer to meanings in connection with which certain roots form a particular tense-stem in a particular way, and so on. Altogether the following meanings have occurred along with the corresponding roots:

anutāpa (√*tap* 3.1.65), *apahnava* (√*jñā* 1.3.44), *avakṣepaṇa* (√*kṛ* 1.3.32), *avana,* (√*bhuj* 1.3.66), *ākrośa* (√*kṣi* 6.4.61), *ācāryakaraṇa* (√*nī* 1.3.36), *ādhyāna* (*prati-*√*jñā* and *saṁ-*√*jñā* 1.3.46), *ālambana* (*ava-*√*stambh* 8.3.68), *āliṅgana* (√*śliṣ* 3.1.46), *ālekhana* (√*kṝ* 6.1.142), *ālocana* (√*dṛś* 3.2.60), *āvidūrya* (*abhi-* √*ard* 7.2.25; *ava- stambh* 8.3.68), *āśiṣ* (√*nāth* 2.3. 55), *āsevana* (*nis-*√*tap* 8.3.102), *āsyaviharaṇa* (*ā-*√*dā* 1.3.20), *utsañjana* (√*nī* 1.3.36), *udgamana* (*ā-*√*kram* 1.3.40), *udyamana* (√*hṛ* 3.2.9), *upamantraṇa* (√*vad* 1.3.47), *upayamana* (√*yam* 1.2.16), *upayoga* (√*kṛ* 1.3.32), *upasaṁbhāṣā* (√*vad* 1.3.47), *ūrdhvakarman* (*ud-*√*sthā* 1.3.24), *kṛcchra* (√*kaṣ* 7,2,22), *gati* (√*vañc* 7.3.63; √*sidh* 8.3.113), *gandhana* (√*kṛ* 1.3.32; √*yam,* 1.2.35), *gahana* (√*kaṣ* 7.2.22), *grantha* (√*yam* 1.3.75), *cittavirāga* (√*duṣ* 6.4.91), *jñāna* (√*nī* 1.3.36; √*vad* 1.3.47), *tanūkaraṇa* (√*takṣ* 3.1.76), *tāyana* (√*kram* 1.3.38), *titikṣā* (√*mṛṣ* 1.2.20), *dainya* (√*kṣi* 6.4.61), *pādaviharaṇa* (*vi-* √*kram* 1.3.41), *pūjā* (√*añc* 6.4.30), *prakathana* (√*kṛ* 1.3.32), *prakāśana* (√*sthā* 1.3.23), *prajana* (√*vī* 6.1.55), *pratijñāna* (*saṁ-*√*gṝ* 1.3.52), *pratiyatna* (√*kṛ* 1.3.32), *pralambhana* (√*gṛdh* and √*vañc* 1.3.69), *prasahana* (*adhi-*√*kṛ* 1.3.33), *bhāsana* (√*vad* 1.3.48), *bhūṣana* (√*kṛ* 6.1.137), *bhṛti* (√*nī* 1.3.36), *mantrakaraṇa* (*upa-*√*sthā* 1.4.25), *lavana* (√*kṝ* 6.1.140), *vigaṇana* (√*nī* 1.3.36), *vijigīṣā* (√*div* 8.2.49), *vidhūnana* (√*vai* 7.3.38), *vipralāpa* (√*vad* 1.3.50), *vimati* (√*vad* 1.3.47), *vimohana* (√*lubh* 7.2.54), *viśabdana* (√*ghuṣ* 7.2.23), *vṛtti* (√*kram* 1.3.38), *vaikṛta* (√*kṛ* 6.1.139), *vaiyātya* (√*dhṛṣ and* √*śas* 7.2.19), *vyaktavācāṁ samuccāraṇa* (√*vad* 1.3.48), *vyaya* (√*nī* 1.3.36), *śālīnīkaraṇa* (√*lī* 1.3.70), *saṁmānana* (√*nī* 1.3.36; √*lī* 1.3.70), *samavāya* (√*kṛ* 6.1.138), *sarga* (√*kram* 1.3.38), *sāhasikya* (√*kṛ* 1.3.32), *sevana* (√*kṛ* 1.3.32), *snehavipātana* (√*lā and* √*lī* 7.3.39), *spardhā* (*ā-*√*hve* 1.3.31), *svakaraṇa* (*upa-*√*yam* 1.3.56) and *hiṁsā* (√*kṛ* 6.1.141; roots *krath, jas, naṭ* and *piṣ* 2.3.56; *rādh* 6.4.123; and √*han* (with the prefix *ni* and *pra* 2.3.56).

The above exhaustive list is here given purposely so that we should be in a position to compare the meanings found in Pāṇini's Aṣṭādhyāyī with those in his Dhātupāṭha. It is seen that out of the 70 meanings comprised in

this list, 14 (i.e. 20%) recur in the Dhātup. in connection with the identical roots. They are:

	Aṣṭādhyāyī	*Dhātup.*
1.	*śliṣa ālińgane* (3.1.46)	*śliṣa ālińgane* (IV, 77).
2.	*āśiṣi nāthaḥ* (2.3.55)	*nāth-ṛ yācñopatāpaiśvaryāśīḥṣu* (I, 7).
3.	*vañcer gatau* (7.3.63)	*vanc-u gatyarthaḥ* (I, 204).
	sedhater gatau (8.3.113)	*ṣidh-a gatyām* (I, 48).
4.	*tanūkaraṇe takṣaḥ* (3.1.76)	*takṣ-ū tanūkaraṇe* (I, 685).
5.	*mṛṣas titikṣāyām* (1.2.20)	*mṛṣ-a titikṣāyām* (IV, 55; X, 305).
6.	*nāñceḥ pūjāyām* (6.4.30) (*cf. also* 7.2.53)	*anc-u gati-pūjanayoḥ* (I, 203).
7.	*prajane vīyateḥ* (6.1.55)	*vī gati - prajana - kāntyasana - khādaneṣu* (II, 39).
8.	*gṛdhivañcyoḥ pralambhane* (1.3.69)	*vañc-u pralambhane* (X, 163).
9.	*divo'vijigīṣāyām* (8.2.49)	*div-u krīḍā-vijigīṣā°* (IV, 1).
10.	*lubho vimohane* (7.2.54)	*lubh-a vimohane* (VI, 22).
11.	*ghuṣ-ir aviśabdane* (7.2.23)	*ghuṣ-ir aviśabdane* (I, 683). *ghuṣ-ir viśabdane* (X, 187).
12.	(*vadaḥ*) *vyaktavācāṁ samuccāraṇe* (1.3.48)	*vad-a vyaktāyāṁ vāci* (I, 1058).
13.	(*hvaḥ*) *spardhāyām āṅaḥ* (1.3.31)	*hve-ñ spardhāyāṁ śabde ca* (I, 1057).
14.	*jāsi-niprahaṇa-nāṭakrāthapiṣāṁ hiṁsāyām* (2.3.56)	*jas-u hiṁsāyām* (X, 130). *han-a hiṁsā-gatyoḥ* (II, 2). *krath-a hiṁsārthaḥ* (I, 838).

In the remaining 56 (i.e. four-fifths) cases the meanings do not recur in the dhātup. This again shows that Pāṇini did not himself assign the meanings in the dhātup. Secondly it also makes clear that dhātupāṭhas do not give meanings exhaustively, although the existence of a thin thread cannot be denied.

There is no instance of the use of the term *-karman in the Aṣṭ.* Instead the use of the action noun in the locative is quite universal. When however Pāṇini desires to refer to a group of synonymous roots in a general way, he uses the term *-artha.* We have the following instances:

adhīk- (2.3.52), *aṣūyā-* (1.4.37), *icchā-* (3.3.157), *ṝrṣyā-* (1.4.37), *krudha-* (1.4.37), *gati-* (1.3.15), *calana-* (1.3.87), *trā-* (1.4.25), *druha-* (1.4.37), *nigaraṇa-* (1.3.87), *paśya-* (8.1.52), *pūjā-* (3.2.188), *pratyavasāna-* (1.4.52),

buddhi- (1.4.52), *bhī-* (1.4.25), *maṇḍa-* (3.2.151), *mati-* (3.2.188), *ruci-* (1.4.33), *rujā-* (2.3.54), *vāraṇa-* (1.4.25), *vid-* (2.3.51), *śabda-* (3.2.148), and *hiṁsā-* (1.3.15).

Here also, as in the Nighaṇṭu and the Nirukta, some meanings are given in the form of an action noun, and some in that of a root, either in abstract or in some modified form.

In this list there is one instance, viz. *vidartha* which qualifies only one root (*jñā*), and not a group of synonymous roots as in the case of others.

The distinction made between *vyaktā vāc* and *avyaktā vāc* has been already referred to.

Two or three points regarding the vocabulary may be noted. The words *upasaṁbhāṣā* (which reminds one of Yāska's upadayā) and *utsañjana* are not met with in the later literature. Similarly *pratyavasāna* in the sense of 'consuming, eating' is also a rare word. P 1.3.41 mentions *pādaviharaṇa* as a meaning of √*kram*. P. Dh. (I. 502) gives the same meaning with a slightly different expression, viz. *pādavikṣepa,* but curiously Candra in his dhātup. (I, 157) gives the meaning as *pādaviharaṇa* itself. (The word *pāda-viharaṇa* might be compared with *āsyaviharaṇa* (P 1.3.20) as indicative of the author's predilection for this particular form).

Vārttikas of Kātyāyana

Kātyāyana's comments being restricted to Pāṇini's Sūtrapāṭha one should not expect to find any sizable material in them regarding his views on the meanings of roots. One or two points, however, will be found interesting. One is his view in general regarding the power of expression of a word. His very first Vārttika runs thus:

Siddhe śabdārthasaṁbandhe lokataḥ arthaprayukte śabde...

The Vārttika states, inter alia, that the meaning of a word is *siddha,* i.e. is not man-made and that a word is used to denote a meaning in which it is current in the world. Grammar does not assign any meaning to any word—including roots—the power of expression being inherent in its nature. This idea is expressed in the later literature by the *svābhāvya* of the words.[14]

From the point of vocabulary two expressions deserve notice. He twice[15] uses the expression *abhūta-tadbhāva* which recurs in the Bhāṣya as

14. Cf. the remark of Kāśikā under P 3,1,25: *svābhāvikatvād arthābhidhānasya yathāsvaṁ pratyayārthā nirdiśyante.*

15. P 3,1,12 Vā. 1; P 5,4,5 Vā. 1.

the definition of √*kṛ;* secondly the first Vārttika to P 1.3.25 runs thus: *upād devapūjā- saṁgatikaraṇa- mitrīkaraṇa- pathiṣu iti vācyam.* The expression *devapūjā-saṁgatikaraṇa* occurs also as a part of the meanings of √*yaj* (P. Dh. I, 1051). Another point to be noted here is that the expressions *saṁgatikaraṇa* and *mitrīkaraṇa* appear at first sight to be synonymous but a fine distinction is made between the two which the Kāśikā brings out thus: *saṁgatikaraṇam upaśleṣaḥ, mitrīkaraṇaṁ tu vināpy upaśleṣeṇa maitrīsaṁbandhaḥ.*

Lastly, in his 1st Vārttika on P 3.3.108 he teaches the affix *ṇvul* (= *ikā* in the feminine) to denote the meaning of a root.[16]

Mahābhāṣya of Patañjali

In the Anhang II to his Kṣīrataraṅgiṇī (pp. 245-246) LIEBICH gives along with the corresponding portions from the dhātupāṭha a c mplete list of the passages from the Bhāṣya where meanings happen to be mentioned along with the roots. I reproduce here the list of the Bhāṣya-passages concerned :

I 3 *rautiḥ śabdakarmā*

9 *śavatir gatikarmā*
dātir lavanārthe

13 *diśir uccāraṇakriyaḥ* (also III, 174)

256 *vapiḥ prakiraṇe dṛṣṭaś chedane cāpi vartate* (also III. 14, 36). *īḍih stuti-codanā-yācñāsu dṛṣṭaḥ preraṇe cāpi vartate* (also III 14, where *dṛṣṭa īraṇe* for *dṛṣṭaḥ preraṇe* 36), *karotir abhūtaprādurbhāve dṛṣṭo nirmalīkaraṇe cāpi vartate ..... nikṣepaṇe cāpi vartate* (also III 14, where *dṛśyate* for the second *vartate.* 36)

I 264 *ubundir niśāmane*

skandir gati-śoṣaṇayoḥ

279 *deśāntaraprāpaṇakriyo vahiḥ*

393 *haratir deśāntaraprāpaṇe .... sādṛśye'pi vartate.*

II 15 *iṣiḥ kāntikarmā*

33 *kṛṣir vilekhane ..... prativídhāne'pi vartate.*

34 *yajir haviṣprakṣepaṇe .... tyāge'pi vartate.*

171 *vyatihāraviṣaya eva mayatiḥ*

16. *'Dhātvarthanirdeśe ṇvul'.*

II 175 *prātiḥ pūraṇakarmā*

356 *diver aiśvaryakarmaṇaḥ* (also 433)
dakṣer vṛddhikarmaṇaḥ

413 *kaṇir ayaṁ saukṣmye vartate*

III 14 *aśnotir vyāptikarmā*

16 *mahatir dānakarmā*

36 *rāter dānakarmaṇaḥ*
śyatir niśāne varta

408 *añcatiḥ prakāśane vartate*

411 *bhidir vidāraṇasāmānye vartate*

The above list will be found interesting in more than one way. Firstly, as regards the form in which meanings have been stated, in 14 out of a total of 31 cases the meaning has been stated with an action noun in the locative followed invariably by the verb *vartate*. As regards the two instances of *ubundir niśāmane* and *skandir gati-śoṣaṇayoḥ*, the context clearly shows that there is no occasion for mentioning the meanings and, as LIEBICH has suggested on the strength of the Mss.-readings, the meanings are lat · interpolations. The dhātupāṭhas invariably drop this *vartate*, evidently foı he sake of economy, though it is of course understood there. Secondly, in 8 cases the meaning is stated with a Bahuvrīhi compound in *-karman* (and in *-kriya*, in two cases), a practice which is strongly reminiscent of the Nighaṇṭu and Yāska. Thirdly, in the case of one meaning viz. *deśāntaraprāpaṇa*, Patañjali states it in one way with reference to √*vah*, and in another with regard to *hṛ*. This shows that as yet there was not one uniform form decided upon. Fourthly, the antithesis between the words *dṛṣṭaḥ* on the one hand and *vartate* on the other indicates, as I have already pointed out above, that there was some sort of a vague tradition about the meanings. Lastly, as LIEBICH has shown, the difference between the definitions, and also between the manner of stating them indicate that the present arthapāṭha had not as yet been constituted.

There is one more point which deserves to be noted, and that is a clear statement in the Bhāṣya that verbs have a plurality of meanings. In his Bhāṣya on the Vārttika 1 to P 1.3.1 Patañjali maintains that even in a case where a root in combination with an upasarga denotes a meaning entirely different from the one which it normally denotes by itself, that meaning (i.e. the modified meaning) is to be regarded as being inherent in that root itself, the purpose of the upsarga being merely to bring out that hidden meaning. He then goes on to say: 'Certainly it cannot be that the roots cannot denote a plurality of meanings' (*na cedaṁ nāsti bahvarthā api dhātavo bhavantīti*).

The statement *bahvarthā api dhātavo bhavanti* recurs under P 6.1.9.4; 6.1.12 and 6.1.45.6 and is important in that in the long history of Sanskrit Grammar this is the first clear statement of the doctrine which is later known as *dhātūnām anekārthatva.*

Patañjali also endorses the view already stated by Kātyāyana that the meaning, like the word, is siddha, i.e. is eternal. He than goes on to make the following humorous remark: A person who is needy of a jar goes to the house of a potter and says, 'make a jar for me. I need it'. But, on the other hand, a person desirous of conveying some idea does not go to the house of a grammarian to say 'make a word for me. I need it'. He just thinks of the relevant words and utters them![17]

The next stage in the history of meanings is the arthapāṭha constituted by Bhīmasena for the Pāṇinian dhātupāṭha and which is borrowed practically unchanged by the authors of other dhātupāṭhas. We have thus finished our survey of the grammatical literature prior to the fixing up of the arthapāṭha. Our conclusions may briefly be summed up as follows:

1. The present set of meanings was not originally a part of the Pāṇinian dhātupāṭha. It is a work of Bhīmasena (and others) who is posterior to Patañjali.

2. Nevertheless many of the individual definitions go back deep into the past and it can be said that there was a sort of a long tradition—although rather a vague one—which was ultimately finalised into the present arthapāṭha.

3. The definitions were never regarded as exhaustive and they were always open to additions from time to time in accordance with the actual usage of the language. In fact *dhātūnām anekārthatva* was already accepted at an early date.

4. The power of the word to denote its particular meaning was regarded as *siddha* and the actual usage of the language was the final authority.

17. *"Ghaṭena kāryaṁ kariṣyan kumbhakārakulaṁ gatvāha: 'kuru ghaṭaṁ kāryam anena kariṣyāmīti'. na ca tadvac chabdān prayokṣyamāṇo vaiyākaraṇakulaṁ gatvāha: 'kuru śabdān prayokṣya' iti. tāvaty evārtham upādāya śabdān prayuñjate"* (Bh. Vol. I, pp. 7-8).

CHAPTER V

AN ANALYSIS OF THE MEANINGS IN THE DHĀTUPĀṬHAS

V

AN ANALYSIS OF THE MEANINGS IN THE DHĀTUPĀṬHAS

Having taken a review of the definitions of the roots occurring in the pre-arthapāṭha grammatical literature, we are now in a position to examine the set of meanings in the dhātup., with the occasional variations found in the different schools. In the present chapter we shall restrict our remarks to the large mass of definitions which are more or less common to all the dhātupāṭhas — at least to the majority of them, leaving the cases of variations to the subsequent chapter where we shall study the dhātupāṭhas in their comparative aspect. In this chapter we shall analyse the body of common definitions so as to observe the general tendencies behind the statement of meanings — e.g., whether the definitions are real, i.e., they explain the meaning of a root independently; whether they are repetitious or the definitions in terms of themselves, i.e., where the meaning is merely some noun formed from the root which is being defined itself; whether the definitions are mutually interdependent, i.e., where after a root is defined in a particular way, the root at bottom of the meaning, when it comes to be defined, is defined in terms of the first root itself; whether the definitions are broad statements of meanings or whether they are exact and specific, and so on. Similarly other general tendencies or peculiarities will also be here noted.

The method followed in this chapter will be as follows: It is evidently impossible to refer to the entire body of the roots — my card index shows some 4000 entries — every time some new aspect is considered. Neither is it necessary. If we can take a sort of a cross-section, that will also serve our purpose equally well. I have, for this purpose, selected the roots beginning with the letter *t*. As the roots come from almost all the ten classes, and as they are not restricted to any particular voice, there is no reason why this group should not be taken as representative, i.e., as reflecting the tendencies shown by the dhātup. as a whole in the matter of assigning the meanings. This device of selecting a cross-section comes in handy when it comes to giving figures in support of the conclusions arrived at. They help give 'a local habitation,' so to say, to the mere abstract theories. Of course, this does not mean that the investigation will be confined to this group of roots only. In fact instances will be drawn quite copiously from the vast mass of the remaining roots in order to confirm (and also serve as a check upon) the results obtained by the examination of the selected group.

I give below, accordingly, all the roots beginning with *t* that have been read in the Dhātupāṭhas, together with their meanings:

(1) 1 *taṁ* (C J Śā om.): *alaṁkāre* (°*kṛtau* V)

(2) 2 *tak*: *hasane* (v.l. *sahane* Kṣ H); *sahane hāse* V

3 *takk*: *hasane* Kk

(3) 4 1 *takṣ*: *tanūkaraṇe* (*kārśye* V)

(4) 5 2 *takṣ* (Kṣ Śā H om.): *tvacane* P (Kṣ om.) J Kk Kt.; 1 *tvaci grāhe* 2 *takṣe* V

6 3 *takṣ*: *hiṁsāyām* Kk.

(5) 7 *taṅk*: *kṛcchrajīvane* (*dausthye* V)

(6) 8 *taṅg*: *gatyarthaḥ* P C; *gatau* H; *gate skhalane ca* V; '*skhalane rūḍhaḥ*' Kṣ.

(7) 9 1 *tañc*: *gatyarthaḥ* P C; *gatau* J Kk Śā H; *itau* V

(8) 10 2 *tañc*: *saṁkocane* (°*kuci* V)

(9) 11 *tañj*: *saṁkocane* P (M om.) J; °*koce* V.

(10) 12 1 *taṭ*: *ucchrāye*

(11) 13 2 *taṭ*: *āghāte* Kṣ Kk; *āhatau* V.

(12) 14 1 *taḍ*: *āghāte* (*āhatau* V)

(13) 15 2 *taḍ*: *bhāsārthaḥ* Kṣ H; *tviṣi* V.

(14) 16 1 *taṇḍ*: *tāḍane* P C J Śā H; *toḍane* Kk; *āhatau* V.

17 2 *taṇḍ*: *samūhe* Kk

(15) 18 1 *tan*: *vistāre* (°*stṛtau* V)

(16) 19 2 *tan* (C om.): *śraddhopakaraṇa* (°*kāra-* Kt) *yoḥ* P Kt. H; °*pahiṁsāyām* J Śā; *śabdopakaraṇayoḥ* Kk; *śraddhāghāte* H; *upahatau śraddhāghāte śraddhopakārayoḥ* V! According to many it also means *dairghya* in combination with an upasarga.

(17) 20 1 *tantr*: *kuṭumbadhāraṇe* (*dhāraṇe* V).

21 2 *tantr*: *darśanīye* Kk

22 *tandr* (Sr): *sāde mohe* V

(18) 23 1 *tap*: *saṁtāpe* (*dāhe* V)

(19) 24 2 *tap*: *aiśvarye* P C J Kt. Śā H; *dāhe aiśvarye ca Kk; davaiśyayoḥ* V.

(20) 25 3 *tap* (C om.): *dāhe*

(21) 26 *tam*: *kāṅkṣāyām* (*khedecchayoḥ* V)

27 1 *tamb* : *gatau* V.

28 2 *tamb* : *mardane* Kk.

(22) 29 *tay* : *gatau* (*rakṣaṇe* (*raṣāyām* J) *ca*, add Kṣ J Śā H); *gati-rakṣayoḥ* V.

(23) 30 *tark* (C om.): *bhāṣā* (°*sā* Kṣ Śā H) *rthaḥ* (*dīptau* V).

(24) 31 1 *tarj* (I) *bhartsane* (*bhartse* V)

(25) 32 *tarj* (X) C om.: *saṁtarjane* (*bhartse* V).

33 2 *tarj* : *vyathane* Kk.

(26) 34 *tard* : *hiṁsāyām* (*hiṁse* V)

35 *tarb* : *gatau* V

(27) 36 *tal* : *pratiṣṭhāyām* (°*ṣṭhākaraṇe* J Śā; °*ṣṭhitau* V)

37 *tav* (Sr): *gatyām* V.

(28) 38 *tas* : *upakṣaye* P Kt Śā H V; *kṣaye* J; *upakṣepe* C Kk.

39 *tāmb* : *mardane* Kk

(29) 40 *tāy* : *saṁtāna-pālanayoḥ* P J Kk Kt Śā H; *saṁtāne* C; *pālana-saṁtatyoḥ* V

(30) 41 1 *tik* : *gatyartha* P (Kṣ om.) Kt.; *gatau* J Kk Śā H; *gatyām* V.

(31) 42 2 *tik* : } *āskandane* P (also cited by H); *hiṁsāyām* C J Śā H;
tig : } *jighāṁsāyām* Kk Kt; *āskande vadhe* V.

43 *tikṣ* : *jighāṁsāyām* Kk.

(32) 44 *tig* : vide 2 *tik* above (*hiṁsāskandyoḥ* V)

(33) 45 *tigh* : *hiṁsāyām* Kṣ; *ghātane* V.

(34) 46 *tij* (I): *niśāne kṣamāyāṁ ca* P (Kṣ M); *niśāne* SC; *kṣamā-niśānayoḥ* J Śā H; *śātane kṣamāyāṁ ca* Kt; *śite kṣāntau ca* V.

(35) 47 *tij* (X): *niśāne* P C J Kt Śā H; *niśāntane* Kk; *śite* V.

48 *tintr* : *amlakaraṇe* Kk.

(36) 49 *tip* : *kṣaraṇārthaḥ* P C Kt; *srutau* J; *kṣaraṇe* Kk. Śā H; *ścyuti* V.

(37) 50 *tim* : *ārdra* (°*drī*- P) *bhāve* (*kledane* V).

(38) 51 1 *til* (C J Śā om.): *gatau*

(39) 52 2 *til* (VI): }
(40) 53 *til* (X): } *snehane* (*snihi* V)

(41) 54 *till* : *gatau* P (M om.) J Kk Śā H V

55 *tīk* : *gatyarthaḥ* S.

56 *tīkṣ* : *jighāṁsāyām* Kk.

(42) 57 *tīm* : *ārdrī* (°*dra-* H) *bhāve* P (M om.) H

(43) 58 *tīra* : *karmasa* (°*rmaṇāṁ sa*° V) *māptau*

(44) 59 1 *tīv* : *sthaulye*

60 2 *tīv* : *ādāna-saṁvaraṇayoḥ* M

61 3 *tīv* : *rujāyām* Kk

(45) 62 *tu* : *vṛtti-hiṁsā-pūraṇeṣu* (*-pūrtiṣu* V) J Kt Śā H V.

63 *tuṅg* : *varjane* Kk

(46) 64 1 *tuj* : *hiṁsāyām* (°*sane* J; °*se* V)

65 2 *tuj* : *hiṁsā-balādāna-niketaneṣu* S.

(47) 66 1 *tuñj* : *hiṁsāyāṁ* (°*sane* J) *pā* (*ca-* Kk; *ba-* Kt Śā; *va-* H) *lane ca* P (Kṣ M) J Kk Kt Śā H; *pālane* S C; *prāṇe'vane* V.

(48) 67 2 *tuñj* : *hiṁsā-bala* (°*lā-* P; °*li-* J) *-dāna-niketaneṣu* P J Kk Kt Śā H; *hiṁsāyām* C; *bhā-ṣaṭṭārthe* V.

(49) 68 3 *tuñj* (C om.); *bhāṣā* (°*sā-* Kṣ Śā H) *rthaḥ* (*bhāyām* V).

(50) 69 *tuṭ* : *kalahakarmaṇi* (*kalahe* C V).

(51) 70 *tuḍ* (I) (J Kk om.) : *toḍane* (*vadhe* V)

(52) 71 *tuḍ* (VI) : *toḍane* P J Kk Kt Śā H; *saṁvaraṇe* C; *bhede* V

72 *tuḍḍ* : *vadhe* V

(53) 73 *tuṇ* : *kauṭilye* all (except Kk V); *gatau* Kk; *jaihmye* V.

74 *tuṇṭ* : *steye* Kk.

(54) 75 1 *tuṇḍ* : *toḍane* all (except Kk V); *vadhe* V (Cf. *toḍanaṁ hiṁsā* Kṣ)

76 2 *tuṇḍ* : *bhakṣaṇe* Kk

77 3 *tuṇḍ* : *chedane* S.

(55) 78 *tuttha* : *āvaraṇe* P H; *stṛtau* V.

(56) 79 *tud* : *vyathane* (*vyathe* V)

(57-60) 80-83 *tup tuph* 1 *tump tumph* } (all I) : *hiṁsārthāḥ* P C Kt; *hiṁsāyām* J Śā H; *bhartsanahiṁsayoḥ* Kk; *vadhe* V

(61-64) 84-87 *tup tuph* 1 *tump tumph* } (all VI) : *hiṁsāyām* P Kk Kt; *kliśi vadhe* V.

(65 to 67) 88-90 *tubh* (I, IV, IX) : *hiṁsāyām* (°*se* V).

(59 · 63) 82. 86 1 *tump* : see above under *tup*.

(68) 91 2 *tump* : *ardane* P (S om.) H V

(60 · 64) 83. 87 *tump* : see above under *tup*

(69) 92 *tumb* (I) (C om.) : *ardane* (*arde* V)

(70) 93 *tumb* (X): *ardane* P (Kṣ M) J Kt Śā H; *mardane* Kk; *adarśane* S; *arde* V.

(71) 94 *tur*: *tvaraṇe* P C Kk Kt (H); *vege* V.

(72) 95 *turv*: *hiṁsārthaḥ* P C Kt; *hiṁsane* J; *hiṁsāyām* Kk Śā H; *hiṁse* V

96 1 *tul*: *dravaṇe* Kk.

(73) 97 2 *tul*: *unmāne* (°*mitau* V)

98 *tull*: *dravaṇe* Kk.

99 1 *tuṣ*: *śabde* C.

(74) 100 2 *tuṣ*: *prītau* P C Śā; *toṣaṇe J; puṣṭau* Kk; *tuṣṭu* Kt H V

(75) 101 *tus*: *śabde* all (except C V); *dhvāne* V

(76) 102 1 *tuh*: *ardane*

103 2 *tuh*: *hiṁsā-gatyoḥ* Kk.

(77) 104 *tūḍ*: *toḍane* P (Kṣ S) Śā H; *vadhe* V

(78) 105 1 *tūṇ*: *saṁkocane* (°*ce* V) Kṣ V.

(79) 106 2 *tūṇ* (C om.): *pūraṇe.*

(80) 107 *tūr*: *gatitvaraṇa-hiṁsanayoḥ* P (Kṣ S); *tvaraṇa-hiṁsayoḥ* M Kk Kt; *tvarāyām* C; *hiṁsā-gatitvaraṇayoḥ* J Śā; *tvarāyāṁ hiṁsāyāṁ ca* H; *syade hiṁse ca* V.

(81) 108 1 *tūl*: *niṣkarṣe.*

(82) 109 2 *tūl*: *pūraṇe* Kṣ H V

(83) 110 *tūṣ*: *tuṣṭau*

(84) 111 *tṛṁh* (VI): *hiṁsārthaḥ* P J Kt Śā; *hiṁsāyām* C Kk H; *hiṁse* V.

(85) 112 *tṛṁh* (VII): *hiṁsāyām* Kṣ Kt

(86) 113 *tṛkṣ*: *gatau* (*ityām* V)

114 *tṛḍ*: *nimajjane* J

115 1 *tṛṇ*: *śabde* Kk.

116 2 *tṛṇ*: *prīṇane* Kk.

(87) 117 3 *tṛṇ*: *adane* (*bhakṣe* V; H cites *adāne* also).

(88) 118 *tṛḍ*: *hiṁsānādarayoḥ* all (except C V); *hiṁsāyām* C; *himse nādare ca* V.

(89) 119 *tṛn*: *adane* M S; *bhakṣe* V.

(90) 120 *tṛp* (IV): *prīṇane* P J Kk Kt Śā V; *tṛptau* C; *prītau* H.

(91) 121 *tṛp* (V) (J Śā om.): *prīṇane.*

(92) 122 *tṛp* (VI) (J Śā om.): *tṛptau.*

(93) 123 *tṛp* (X): *tṛptau* P (M S); *saṁdīpane* Kṣ (also cited by H); *prīṇane* J Kk Kt Śā H; *saṁdipe prīnane ca* V.

(94) 124 *tṛph* (C Kk Kt om.): *tṛptau* (*prīṇane* V).

(95) 125 *tṛmp*: *tṛptau* Kṣ C Kk Kt H; *prīṇane* V.

(96) 126 *tṛmph* (C Kk Kt om.): *tṛptau* (*prīṇane* V).

(97) 127 *tṛṣ*: *pipāsāyām* (*tṛṣi* V).

(98) 128 *tṛh* (VI): *hiṁsārthaḥ* P J Kt Śā; *hiṁsāyām* C Kk H.

(99) 129 *tṛh* (VII) (Kṣ Kt om.): *hiṁsāyām* (°*se* V).

(100) 130 *tṝ*: *plavana-taraṇayoḥ* all (except C V); *plavane* C; *tāre'bhibhave plutyām* V.

(101) 131 *tej*: *pālane* P (Kṣ om.) C J.

(102) 132 *tep*: *kṣaraṇārthaḥ kampane ca* P Kt; *kṣaraṇārthaḥ* C; *srutau kampe ca* J; *kṣaraṇe kampane ca* Śā H; *ścyuti kampe ca* V.

133 *tem*: *rujāyām* Kk

(103) 134 1 *tev*: *devane*

135 2 *tev*: *rujāyām* Kk.

(104) 136 1 *toḍ*: *toḍane* Śā H.

137 2 *toḍ*: *anādare* V.

(105) 138 *tyaj*: *hānau* (*tyāge* J).

(106) 139 *traṁs* (C om.): *bhaṣā* (°*sā-* Kṣ Śā H) *rthaḥ* (*bhāsi* V).

140 *trakh*: *gatyarthaḥ* S.

(107) 141 *traṅk*: *gatyarthaḥ* P C Kt; *gatau* P Kk Śā H V.

142 *traṅkh*: *gatyarthaḥ* S.

(108) 143 *traṅg*: *gatyarthaḥ* P (M om.) C; *gate* V.

(109) 144 *trand*: *ceṣṭāyām* (°*ṣṭe* V).

(110) 145 *trap*: *lajjāyām* (*hriyi* V).

(111) 146 1 *tras*: *udvege* P Kk Kt; *bhaye* C H V; *udvejane* Śā.

(112) 147 2 *tras*: *dhāraṇe* P (Kṣ S also cite *vāraṇe* and Kṣ *grahaṇe*) Kk; *vāraṇe* J Kt Śā H (*dhāraṇe* and *grahaṇe* cited by H); *dhṛtau grahe niṣedhe* V.

148 *truṭ* (IV): *chidi* V.

(113-114) 149-150 *truṭ* (VI and X): *chedane* (*chidi* V)

(115) 151 1 *truḍ*: *chedane* Kṣ Kk H.

(116) 152 2 *truḍ* : *nimajjane* Śā H.

153 *truṇḍ* : *chedane* Kk.

(117-120) 154-157 *trup truph trump trumph* : *hiṁsārthāḥ* P C Kt; *hiṁsāyām* J Śā H; *bhartsana- hiṁsayoḥ* Kk; *vadhe* V.

158 *trūṇ* : *āśāyām* Kk

(121) 159 1 *trai* : *pālane*

160 2 *trai* : *tṛptau* Śā.

(122) 161 *trauk* : *gatyarthaḥ* P C Kt; *gatau* J Kk Śā H; *gatyām* V.

(123) 162 1 *tvakṣ* : *tanūkaraṇe* (*kārśye* V).

(124) 163 2 *tvakṣ* : *tvacane* Kṣ C Śā H; *tvaci grāhe* V.

(125) 164 *tvaṅg* : *gatyarthaḥ kampane ca* P; *gatyarthaḥ* C; *gatau kampane ca*, J Śā H; *kampane* Kk Kt; *kampe gate* V.

(126) 165 *tvac* : *saṁvaraṇe* (*vṛtyām* V).

(127) 166 *tvañc* : *gatyarthaḥ* P C; *gatau* J Kk Kt Śā H; *itau* V.

(128) 167 *tvar* : *saṁbhrame* (*syade* V)

(129) 168 *tviṣ* : *dīptau* (*bhāse* V; all (except C Kk Kt) add that preceded by *ava* it also means *dāna* and *nirasana*).

(130) 169 *tsadm* : *gatau* Kṣ H.

(131) 170 *tsar* : *chadmagatau* (°*tyām* V).

In the above list it will be seen that there are in all 170 definitions, i.e. occurrences of the statement of meanings. (There are some meanings which occur against more than one root. Similarly some roots appear more than once, according as they are read in more than one class, with or without a change of meaning). Of these, as said above, we are going to ignore here those which concern roots that have been read by solitary dhātupāṭhas (mostly by Kk; and few by S) only. The common ones, which we are going to examine here, number 131. These are marked by the numbering with figures enclosed in the circular brackets.

The first thing which becomes apparent even on a cursory reading is that to every root generally only one meaning is assigned and that this meaning is put in the locative (singular) of the action noun. Where there are more than one meaning against a root they are either joined by the conjunction *ca*, or are combined into a copulative compound (dual or plural, as the case may be).

Sometimes instead of a single abstract noun we find the meaning stated in the form of a compound expression with some word meaning 'action', e.g. *-karaṇa, karman, kṛti, kriyā* as the second member. Thus we

have *antakarmaṇi, ālekhyak°, kānti* (v.l. *°tī*)*-k°, citra* (v.l. *°trī*)*-k°* (= *caitrasya karaṇe* Ks.), *tanū-k°, dravī-k°, nyak-k°* (v.l. *nyaṅga-k°, nyaṅgavidhāne*), *pṛthak-k°, pratiṣṭhā-k°, prasahya-k°, balāt-k°, bhasmī-k°, bhāva-k°, varṇa-k°, vicitrī-k°, śabda-k°, śauca-k°, saṁgati-k°, saṁtā* (v.l. *dā*)*na-k°, steya-k°, hāva-k°*.

In a smaller number of cases a more or less concrete noun is seen to have taken the place of action nouns. They are: *jarāyām, jarasi, tapasi, tejasi, vāci, śāstre*, etc.

There are some cases where the meaning appears in the form of an adjective (some of which have developed into nouns). They are: *kalyāṇe, duḥkhe, nirbīje, priye, bhīme, vakre, vicitre, śive, śubhe, sukhe*, etc. Here may also be mentioned past participles, which are acknowledged as serving the function of abstract nouns.[1] They are: *jīrṇe, magne, matīkṣite, yuddhe, roṣakṛte*, etc.

There is also a considerably large number of cases where meanings are stated with abstract nouns which are rather expressive of some quality than of action. They are (in *-ya*): *ādhārṣṭye, ābhīkṣṇye, ārogye, ālasye, aiśvarye* (also *paramaiśvarye*), *kauṭilye, jāḍye, taucchye, dainye, daurbalye, dhārṣṭye, pāṅgulye, pārusye, prāgalbhye, prādhānye, bālye, māṅgalye, mādhurye, mūlye, mauṇḍye, rābhasye, laulye, vaikalye, vaikṛtye, vaiklavye, vaicittye, śaighrye, śaitye, śaithilye, śaurye, śraiṣṭhye, śvaitye, sāmarthye, steye, sthairye, sthaulye* etc.; (in *-a*) *ārjave, kaitave, maithune, vaikṛte*, etc.; (in- *-tva*) *ghanatve, tanutve, prahvatve, yogyatve, vikalatve, vyākulatve, śaṭhatve* etc.; (in *-tā*) *sattāyām;* (lastly, with the word *-bhāva* actually added): *ārdra* (*°drī*)*-bhāve, pūta* (*°tī*)*-bh°, pṛthag-bh°, prakaṭa-bh°, harita-bh°* etc.

Lastly, in about a dozen cases even concrete nouns expressive of objects have been used in stating the meanings. They are: *gaṇḍe, jihvāyām, danda-śūke, pākāgnikuṇḍe, bandhuṣu, vadanaikadeśe, bimbe, bile, bhadrāsane, mañcikāyām* ect. The commentators explain that in such cases, some action, especially the one particularly connected with these nouns, is to be understood. Thus commenting upon *kharda dandaśūke* (P. Dh. I, 61) M remarks: *dandaśūko daṁśanaśīlaḥ svabhāvabhūta-garhitadaṁśanakriyākartā. anena tatsamavetā svabhāvabhūta-garhitadaṁśanakriyā lakṣyate, dhātoḥ kriyā-vacanatvāt. evam anyatrāpi dravyanirdeśe kriyā lakṣyate.*

In a small number of cases, instead of the meaning being actually stated, a root is simply said to be synonymous with a particular root. Thus

1. *Napuṁsake bhāve ktaḥ* P 3,3,114.

√*ag* is described as *akavat* H; √*sad* and √*suh* as *śakyarthe* Kṣ, *śakyārthe* M, and *cakyarthe S;* √*vevī* as *vetinā tulye* P Kk Kt = *vīsamānārthaḥ* H = *īlavat* V; √*cīv* as *jhaṣīvat* H; √*khac* and *khav* as *heṭhaśvat* H; *ā*-√*sad* as *padyarthe* P Kt; √*vrī* as *vṛṇotyarthe*[2] P J Śā. They are more common in V e.g. *aghyarthake* (√*vaṅgh*), *aghyarthe* (√*maṅgh*), *asārthe* (√*aṣ*), *iṅsamaḥ* (√*carc*), *okhṛvat* (√*rākh, lākh*), *okhārthe* (√*drākh, dhrākh*), *khaṭvat* (√*kiṭ*), *gvarthe* (√*had*) etc. Similarly roots *yauḍ* and *rauḍ* are described here as *ṭāntavat*, i.e. *yauṭvat* (= *saṁbandhe*) and *rauṭvat* (= *anādare*) respectively.

After the word expressive of meaning the verb understood is *vartate*, as Sāyaṇa remarks under the first root, *bhū*.[3] It will be recalled that in the list of citations from the Mahābhāṣya appearing in the previous chapter, the verb *vartate* is actually used in all such cases.

When in the dhātup. there is a string of roots with a common meaning, the older dhātupāṭhas — P C and sometimes Kt — prefer to state the meaning in the form of a bahuvrīhi compound in *-artha*. Thus P. Dh. I, 94-108 reads roots which are *gatyarthāḥ;* 385-388, *kṣaraṇārthāḥ*, I, 471-481 which are *śabdārthāḥ* etc. In our group we have four such instances, viz. *gatyarthāḥ, bhāṣā* (v.l. °*sā*)*rthāḥ, kṣaraṇārthāḥ* and *hiṁsārthāḥ*.

It is interesting to note that this method is reminiscent of that in the Nighaṇṭu and it appears in the older dhātupāṭhas only. The later dhātupāṭhas discontinue it generally with a noteworthy exception of *bhaṣā* (°*sā*)*rtha* group to which we will have occasion to return later on.

Coming to the tendency in the matter of the number of the meanings assigned to one root, generally one meaning is assigned to one root. There are, however, cases of more than one meaning being assigned to a root, the extreme case being that of √*av* which claims no less than nineteen meanings.[4] In our group, out of 131 cases as many as 117 (i.e. 89%) give one meaning for each root. The remaining 14 cases which exhibit more than one meaning for a root are in connection with the following roots: 2 *tan*,

2. On this the Tattvab. remarks: *varaṇa iti vaktavye vṛṇotyartha iti vacanaṁ vaicitryārtham.*

3. *Vartate iti śeṣaḥ*: similarly added in the Bālam. also.

4. *rakṣaṇa - gati - kānti - prīti - tṛpty - avagama - praveśa - śravaṇa - svāmyartha-yācana-kriyā-icchā-dīpty-avāpty-āliṅgana-hiṁsā-ādāna- bhāga-vṛddhiṣu.* The number 19 is arrived at by splitting *yācankriyā* into two meanings on the authority of Vop. who enumerates (Kkd. 286-287) *arthane* and *kṛtau* as two different meanings, and Tattvab. which says: *ekonaviṁśatir arthāḥ.* It seems, however, better to understand *yācanakriyā* as one meaning (cf. similar cases cited above), taking the total to 18.

2 *tap, tay tāy, tij (I), tu,* 1 *tuñj,* 2 *tuñj, tūr, tṛd, tṝ, tep, tvaṅg* and *tviṣ.*[5]

Candra goes one better and makes it a rule to ascribe in the dhātup. only one meaning to *every* root. It will be seen that with the exception of two roots, 2 *tan* and *tu* which C does not read all roots which are mentioned above as being multi-meaning have each only one meaning in that dhātup.

This need not, however, lead us to suppose that according to the dhātupāṭhas a root was capable of expressing only one meaning. On the contrary we come across express statements to the effect that roots possess more than one meaning, i.e. are capable of expressing more than one action; that generally only one meaning is stated, they add, is just to make clear the character of a root as such, by showing that it is capable of expressing some action — which is the essential quality of a root-; and that, finally, its various meanings should be ascertained from the usage of the language. Thus runs the concluding stanza of the C. Dh.:

kriyāvācitvam ākhyātum ekaiko'rthaḥ pradarśitaḥ |
prayogato'nugantavyā anekārthā hi dhātavaḥ ||

The statements made in this stanza, while applying primarily to the C.Dh., also hold good generally to the other dhātupāṭhas. Though there is no express statement of the doctrine of *dhātūnām anekārthatva* in the Pāṇinian Dhātupāṭha, the commentators make the position clear at the first opportunity. Thus, commenting upon the first dhātusūtra viz. *'bhū sattāyām'*, Sāyaṇa remarks that this statement of meaning has to be understood as being merely indicative or illustrative (*upalakṣaṇam*) in view of the fact that the root *bhū* is seen to have been used in a variety of senses, either inependently or in composition with the preverbs; that what applies to the definition in question is true of the entire set of meanings; and lastly, that only on the supposition that the *arthanirdeśa* is meant to be only indicative, the reading of the restrictive word eva in the definition *'krīḍāyām eva'* of the roots *kurd* etc. becomes justified which, had the definitions been meant to be exclusive, would be meaningless.[6]

5. Here also, as a corolary to our general procedure followed in this chapter, when a single dhātup. (usually Kk. or V) ascribes more than one meaning to a root against all other dhātupāṭhas, that fact is ignored and the root is here considered as having been given with one meaning.

6. *"Upalakṣaṇam arthanirdeśaḥ, Himavato Gaṅgā prabhavati, mallo mallāya prabhavati, grāmasya prabhavati, parān parābhavati, idam evaṁ saṁbhavati, sthālī taṇḍulān saṁbhavati, śamaṁ anubhavati ityādau prakāśana-aṅganiḥsaraṇa-paryāpty-aisvarya-abhibhava-utprekṣā-antarbhāvana-saṁvedanādīnām avagamāt .... evam uttartrāpy artha-nirdeśo'tantram ..... arthanirdeśasya upalakṣaṇatva eva kurda khurd gurda gudakrī-ḍāyām eva ity evakāropapattiḥ".*

Kṣīrasvāmin also remarks in a similar vein and quotes the stanza *'kriyāvācitvam ākhyātum'* etc. Similarly both he and Maitreyarakṣita believe, as Sāyaṇa does, that the definition *krīḍāyām eva'* is deliberately so framed in order to hint at the indicative character of the definitions in general.[6a]

There is one point which is in favour of the above inference drawn by the commentators. Towards the end of the Pāṇinian dhātup. there is a sūtra (X, 392) which runs thus : *bahulam etam nidarśanam.* It is subjected to a variety of interpretations, but mostly concerning the roots. There is no reason, however, why this remark should not apply to the meanings as well. In fact Kṣīrasvāmin positively tells us that the Saunāgas interpreted the sūtra as referring to the meanings.[7]

The doctrine of *'dhātūnām anekārthatva'* should not however be misunderstood as meaning that any root was regarded as capable of expressing any action. All that it means is that the statement of meanings in the dhātup. — or in any other work for that matter— is not exhaustive and that if a root is seen in the actual language to denote an idea which is not recorded in the dhātup. then this particular expressiveness should not be denied to the root, simply because it does not happen to be recorded in the dhātup. It is the actual usage of the language which determines the expressive power of a root.[8]

Having thus seen that it is quite possible that even the author of the *arthapāṭha* in Pāṇini's dhātup. in all probability intended the set of meanings to be only an upalaksaṇa it must be pointed out that the particular argument advanced by the commentators, which is based on the so-called significant framing of the definition *'krīḍāyām eva'*, is not convincing. Firstly, when roots as a class are generally admitted to be multivocal, there is no reason, why a couple of roots should be arbitrarily picked up and condemned to have only one meaning, particularly when there is no positive evidence in support of such a restriction. Secondly, there is another, and a far more satisfactory way of explaining the significance of the word *eva.* The sūtra in question together with the preceding one reads thus: *urda māne krīḍāyāṁ*

6a. *Krīḍāniyamo'tra dhātūnām anekārthatve liṅgam'. Similarly* M: *krīḍāyām evety evakārād anyatrārthanirdeśeṣv aniyamo'numīyale.* Cf. also Bālam.: *evakāras tv ito'nyatra dhātvarthanirdeśasya upalakṣaṇatāṁ dyotayati.*

7. *'Bahulam etan nidarśanam ..... dhātūnām arthanirdeso' yam nidarśanārtham iti Saunāgāḥ, yad āhuḥ: kriyāvācitvam ākhyātum..... etc.*

8. Cf. the Bālam. (Vol. II, p. 29): *na cātiprasaṅgaḥ śaṅkyaḥ, anekārthā api dhātavo bhavantīti Bhāṣye apiśabdena prayogānusāritvāvagateḥ.*

ca/ kurda khurd gurda guda krīḍāyām eva (I 20-24). It will be easily seen that the first sūtra assigns two meanings, viz. *māna* and *krīḍā* to √*urd* and then the following sūtra says that the roots *kurd* etc. mean *krīḍā* only — hinting that they do not have the second meaning viz. *māna* which is mentioned in the immediately preceding sūtra. Thus the real purpose of reading the word *eva* is to exclude the meaning *māna* in the case of the roots *kurd* etc. — and not to hint at the indicative character of the definitions in general. In fact this interpretation is so obvious that it is somewhat strange that it should not have struck anyone before.

The definitions then, even in the Pāṇinian dhātup. are only of the nature of *upalakṣaṇa*. It might then be asked why instead of uniformly assigning one meaning each to all the roots, in some cases roots have been arbitrarily furnished with two, three, four or even more meanings. Sāyaṇa's reply to such a question is that this is just *prapañcārtham,* for the clarification of the meanings, and that it does not affect the *upalakṣaṇatva* of the definitions in general.[9] The addition of a meaning to the preceding one (or, ones) by the conjunction *ca*[10] (as against the formation of a copulative compound) is sometimes explained by commentators as being deliberately intended to show that the additional meaning thus introduced is either secondary or is not so common. Thus, commenting on *'gādh-ṛ pratiṣṭhā-lipsayor granthe ca'* (P.Dh. I, 4) Kṣ. remarks: *"granthanam granthaḥ; asya pṛthakpāṭho viralaprayogārthaḥ."* On *'urda māne krīḍāyāṁ ca'* (P.Dh. I, 20) he remarks: *"mitir mānam iti mukhyo'rthaḥ."* But the commentators also are not dogmatic about this and admit that this explanation does not always apply. Thus commenting on *'mā-ṅ māne śabde ca'* (P. Dh. III, 6) the Puruṣakāra (p. 20) observes as follows: *"mā-ṅ māna-śabdayor ity anuktir anvācayadvārā śabde prayogāprācuryārthā nūnam..... vyabhicarati caitat 'pūy-ī viśaraṇe durgandhe ca'* (P. Dh. I, 513) *ityādau."* Liebich is of the opinion that in such cases the additional meaning may be taken to be an insertion of later 'experts.'[11] It seems to me that the only cases which may be looked upon as sure cases of later addition are those where a copulative compound is further followed by an additional meaning, as e.g. *gādhṛ pratiṣṭhā-lipsayor granthe ca* (P. Dh. I, 4) where, had the meaning *grantha* been intended by the author who laid down *pratiṣṭhā* and *lipsā,* then in nine cases out of ten he would have given the definition as *pratiṣṭhālipsā-granthesu.* All other cases of multi-meaning definitions could be accounted for, as I have said in the previous chapter, on the supposition that Bhīmasena simply compiled the

9. *'Gādhṛ pratiṣṭhālipsayor ityādau tv anekārthābhidhānaṁ prapañcārtham'* (p. 3).
10. As, e.g. in P. Dh. I, 12.
11. *Einführung* III, 8.

meanings, irrespective of the uniformity in the matter of number, as they had come down to him from different sources.

So much about the quantitative aspect. Now let us turn to the qualitative one. It is already stated above that the meaning is given in the form of an action noun. This action noun is, in the majority of cases, a single word, a noun derived from a root synonymous with the root defined, and either by itself or in composition with a preverb (an upasarga, or a gati), e.g. *alaṁkāra, hasana, tvacana, hiṁsā, gati, saṁkocana, āghāta,* etc. in the selected group. How prevalent this type is will be seen from the fact that out of the 131 cases here considered, about 122 (i.e. 93%) conform to this type.[12] The large bulk of the definitions may, therefore, be said to be synonymous.

But in a small percentage of cases one comes across a deviation from the above practice. And the deviation is in two opposite directions, one which is definitely happy, while the other is rather unfortunate. The former deviation I have called happy because, instead of merely a synonym being put as the meaning an attempt is here made to give a more or less independent definition, a definition which would, so to say, conjure up the picture of the action involved. The following definitions may be considered in this respect:

kram: *pādavikṣepe* 'stepping of foot'.
krī: *dravyavinimaye* 'barter goods'.
ghrā: *gandhopādāne* 'take in odour'.
cumb: *vaktrasaṁyoge* 'contact of mouths'.
jāgṛ: *nidrākṣaye* 'loss of sleep'.
jṝ: *vayohānau* 'declining of age'.
dah: *bhasmīkaraṇe* 'reduce to ashes'.
nṛt: *gātravikṣepe* 'tossing of limbs'.
rud: *aśruvimocane* 'shed tears'.
likh: *akṣaravinyāse* 'arrange letters'.
vap: *bījanikṣepe* 'throw or scatter seed'.
ve: *tantusaṁtāne* 'form into fabric'.
śikṣ: *vidyopādāne* 'receive instruction'.
sthā: *gatinivṛttau* 'desist from moving'.
svid: *gātraprakṣaraṇe* 'oozing (of sweat) from the body.'

It will be seen that definitions like these try to draw a vivid picture of the whole process of the action denoted by the verb. In our group we

12. These cases can be easily seen from the general list given above, by excluding the nine cases of 'real definitions' which are cited further on.

have the definitions of the following nine roots belonging to this type: *l takṣ, taṅk, l tantr, tik* and *tig* (as given by Kk Kt), *tīra, tṛṣ, l tvakṣ* and *tsar*.

Now let us turn to the other type of these what may be called real definitions. Often a general idea is capable of developing a number of specific shades. Movement of feet, e.g., is a general action which includes walking, running, marching, marking time, leaping, dancing, climbing, skating, slipping, creeping, sneaking and a number of similar actions. Similarly speaking is a generic idea and has different varieties like saying, reading, reciting, lecturing, narrating, mimicking, etc. These various shades are expressed by different verbs. Consequently when these different verbs come to be defined, then, in spite of a common idea underlying them all, each of them is to be defined differently so as to bring out the specific shade of meaning. Bearing this principle in mind if we examine such definitions in the dhātup. as are susceptible to this distinction of the general and the specific, we find that in some cases an attempt is made to state the exact and the specific shade of meaning while in others the author is content to mention only the broad idea.

Let us take, e.g., roots of movement, i.e., roots meaning some sort of movement. We find that in the entire dhātup. following specific definitions occur in this connection:

1 *aṁh*: *vakragatau* 'go crookedly' Kk.

(1) 2 *ak*: } *kuṭilāyāṁ gatau* (*vakragate* V) 'go crookedly'
(2) 3 *ag*: }

(3) 4 *at*: *sātatyagamane* (°*gate* V) 'go continuously, wander'.

5 *kuñc*: *gatikauṭilye* 'go crookedly' Kṣ.

6 *kuṇṭ*: *gativaikalye* 'limp' Kk.

(4) 7 *khañj*: *gativaikalye* (*khañjane* V) 'limp'.

(5) 8 *khuṇḍ*: *gativaikalye* Kṣ H = *khañje* V 'limp'

9 *gāḍh*: *tīvragatau* 'circulate rapidly' Kk.

(6) 10 *cup*: *mandāyāṁ* (*śanair* V) *gatau* 'go slowly'.

11 *cūp*: } *kuṇṭhāyāṁ gatau* 'go stumbling' Kk
12 *jap*: }

(7) 13 *ḍī*: *vihāyasā* (°*sāṁ*) *gatau* (*ākāśagamane* C; *nabhogatau* V) 'go by air, fly'.

14 *ḍol*: } *gaticāturye* 'move dexterously' Kk
15 *ḍhol*: }

(8) 16 *tūr* : *gatitvaraṇe* P (Kṣ S) J Śā = *tvarāyām* CH = *tvaraṇe* M Kk Kt = *syade* V 'hasten, speed'.

(9) 17 *tsar* : *chadmagatau* (°*gatyām* V) 'go stealthily'.

18 *dol* : *gaticāturye* 'move dexterously' Kk.

(10) 19 *drā* : *kutsāyāṁ ga* (°*tsitāyāṁ ga-* Kṣ; °*tsitaga-* H) *tau* P J Kk Kt Śā H = *palāyane* C V, (also cited by Kṣ H) 'run helter-skelter'.

(11) 20 *dhor* : *gaticāturye* 'move dexterously' (all except Kk. Kt.)

21 *dhauḍ* : *gaticāturye* 'move dexterously' (all except Kk. Kt.)

22 *plih* : *vakragatau* 'go crookedly' Kk.

(12) 23 *phakk* : *nīcair* (*śanair* V) *gatau* 'go down'.

24 *bāḍh* : *tīvragatau* 'circulate rapidly' Kk.

25 *buḍḍ* : *udgamane* 'go up, rise' Kk.

(13) 26 *muṇṭh* : *palāyane* 'run away'.

(14) 27 *rev* : *plava* (*pluti-* Kṣ H) *gatau* (*plutau* V) 'go leaping'.

28 *laṅg* : *khañjane* :
29 *vaṅg* : *khañje* : } 'leap' V.

(15) 30 *vaṇṭh* : *ekacaryāyām* (°*care* V) 'go alone'.

(16) 31 *śal* : *āśugamane* (°*gatau*) Kṣ C Kt H.

(17) 32 *śaś* : *pluta* (°*ti*) *gatau* (*plavane* V) 'go leaping'.

(18) 33 *śval* : *āśugamane* (°*gatau*) P (Kṣ om.) J Śā H.

(19) 34 *śvall* : „ „ P C J Kt Śā H.

(20) 35 *sku* : *āpravaṇe* (*udvṛttau* V) 'leap'.

(21) 36 *skund* : *āpravaṇe* (*utplutya gatyām* V) 'leap'.

(22) 37 *spand* : *kiṁcic calane* (*īṣatkampe* V), 'move slightly, quiver'.

38 *sval* :
39 *svall* : } *āśugstau* 'go rapidly' Kk.

Out of the 39 roots recorded above, we drop those which have been mentioned by solitary dhātupāṭhas. In the end there remain 22 roots (marked with figures enclosed in the circular brackets) whose definitions are instances of specific definitions common to most of the dhātupāṭhas.

We take one more instance, this time a group of roots denoting some sort of sound. It is seen that the roots of sound are distributed in three broad categories, viz. (1) *vyakta* 'distinct, i.e., human speech', (2) *avyakta* 'indistinct (like humming)' and (3) *śabda* in general. But besides these there are also some cases of specific definitions. They are :

1 *kaṇ*: *ārtasvare* 'moan' V.

(1) 2 *kard*: *kutsite śabde* (*rave* V) 'make a foul sound'.

(2) 3 *kās*: *śabdakutsāyām* = *kuśabde* V (*śabde* C) 'cough'.

4 *ku*: *ārtasvare*. 'moan' V.

(3) 5 *kuc*: *śabde tāre* P Śā H = *uccaiḥ śabde J* = *śabdottare* Kk Kt = *tāraśabde* V (śabde C) 'utter a high-pitched note'.

6 *kū*: *ārtasvare* 'moan' V.

7 *ā-krand*: *śabdasātatye* 'wail continuously' V.

(4) 8 *gada*: *devaśabde* (*abhradhvanau* V) 'thunder'.

9 *garj*: *kalakaladhvanau* 'make a confused sound' Kk.

10 *gard*: *kutsite śabde* 'make a foul sound' Kk.

11 *gai*: *gāne* 'sing' V.

12 *jāṅkṣ*: *ghoravāsite* 'utter a discordant note' Kk.

(5) 13 *drāṅkṣ*: *ghoravāśite* (°*vāsite* J Kk Kt; °*rute* V)

(6) 14 *dhrāṅkṣ*: } 'utter a discordant note'.
(7) 15 *dhvāṅkṣ*: }

(8) 16 *pard*: *kutsite śabde* (*apānotsarge* V) 'make a foul sound, fart'.

(9) 17 *bukk*: *bha* (*bhā*) *ṣaṇe* (*śvādiśabde* V) 'bark'.

18 *maḍḍ*: *uccair dhvanau* 'cry out loudly' Kk.

(10) 19 *maś*: } *śabde roṣakṛte* (°*tau* Śā) P J Śā; *śabde roṣe ca* Kk Kt H =
(11) 20 *miś*: } *dhvanau kope* V (*śabde* C) 'raise the voice in anger' (according to others, two meanings: (i) to be angry, (ii) to sound).

21 *śard*: *kutsite ṣabde* (Kk) 'make a foul sound'.

(12) 22 *śṛdh*: *śabdakutsāyām* (*parde* V) 'make a foul sound'.

(13) 23 *stana*: *devaśabde* (*abhraśabde* V) 'thunder'.

(14) 24 *sphūrj*: *vajranirghoṣe* (°*niṣpeṣe* Kṣ H)

25 *hreṣ*: *svane'śvānām* 'neigh' V.

Dropping as before the definitions which are peculiar to single dhātu-pāṭhas, we find that there remain fourteen (marked with figures enclosed in brackets) which are of a representative nature and denote some special shade of sound.

But there are also instances of the opposite tendency, viz. of stating only the general meaning whereas the root is found to express a specific shade of it. Concentrating our enquiry on the two selected groups—roots of 'movement' and those of 'sound'—we find that in the whole dhātup. out of the

attested roots from the large mass of roots which have only the general meaning *gati* 'movement' assigned to them the following have been noticed to denote some particular variety of movement: *aj, aṭ, aṇṭh, iṅg, iṣ, ṅkh, ṛṣ, khel, ṭīk, ḍhauk, dram, drā, dru, dhanv, dhav, dhāv, dhvaṁs, nakṣ, pat, phaṇ, bhreṣ, mruc, mluc, raṁh, raṅg, ri, riṅkh, riṅg, rī, laṅgh, vañc, valg, vā, vī, vell, vevī, śal, śvañc, sṛ, sṛp, sru* and *hval.*

The meanings of these roots, as stated in the modern dictionaries which are based on the evidence of the existing literature, are as follows:

1 *aj* 'drive', 2 *aṭ* 'wander', 3 *aṇṭh* 'visit', 4 *iṅg* 'stir, move, agitate', 5 *iṣ* 'send', 6 *ṅkh* 'swing', 7 *ṛṣ* 'rush', push, glide', 8 *khel* 'stagger', 9 *ṭīk* 'trip, jump', 10 *ḍhauk* 'approach', 11 *dram* 'run', 12 *drā* 'run, make haste', 13 *dru* 'run, melt, attack', 14 *dhanv* 'run, flow', 15 *dhav* 'flow, run', 16 *dhāv* 'run, stream', 17 *nakṣ* 'attain, approach', 18 *pat* 'fly, fall', 19 *phaṇ* 'spring, cause to bound', 20 *bhreṣ* 'totter, stumble', 21 *mruc* 'go down, set', 22 *mluc* 'go down, set', 23 *raṁh* 'hasten', 24 *raṅg* 'rock', 25 *ri* 'flow, let flow', 26 *riṅkh* 'creep, go slowly', 27 *riṅg* 'creep, go slowly', 28 *rī* 'flow', 29 *laṅgh* 'leap, ascend', 30 *vañc* 'move crookedly; sneak', 31 *valg* 'spring, speed', 32 *vā* 'blow', 33 *vī* 'go, impel, stir', 34 *vell* 'stagger', 35 *vevī* 'flutter (of the heart), tremble', 36 *śal* 'leap, spurt out', 37 *śvañc* 'spread', 38 *sṛ* 'flow, blow', 39 *sṛp* 'creep', 40 *sru* 'flow', 41 *hval* 'go wrong, stumble'.

I now give below instances of such roots of 'sound' as have only a general meaning, either *avyaktaśabda* (v.l. °*ktā vāc* etc.) or merely *śabda* assigned to them but which have been attested in literature as denoting some particular variety of sound. They are: *u, kṣu, garj, gu, gṝ, gai, dhmā, nard, bṛ(ṁ)h, mā, mlech, rambh, ras, ru, rebh, rai, vāś, vṛ(ṁ)h, hikk, heṣ* and *hreṣ.*

The specific meanings of these roots that have been recorded in the modern lexicons as having been attested in the literature are:

1 *u* 'proclaim, call out', 2 *kṣu* 'sneeze', 3 *garj* 'roar', 4 *gu* 'speak out, proclaim', 5 *gṝ* 'sing, call out, invoke', 6 *gai* 'sing', 7 *dhmā* 'blow (as a wind instrument', 8 *nard* 'bellow', 9 *bṛ(ṁ)h* 'roar', 10 *mā* 'bellow', 11 *mlech* 'speak barbarously or indistinctly', 12 *rambh* 'roar', 13 *ras* 'roar', 14 *ru* 'cry, roar', 15 *rebh* 'sing, creak, murmur', 16 *rai* 'bark', 17 *vāś* 'bellow, roar" 18 *vṛ(ṁ)h* 'roar' 19 *hikk* 'sob, hiccough', 20 *heṣ* 'neigh', 21 *hreṣ* 'neigh'.

Here are the results: In the 'movement' group, as against 22 cases of definitions where specific meaning has been stated, there are 41 where it is not; in the 'sound' group, as against 14 cases of the definitions where the specific meaning has been stated, there are 21 where it is not. In the first group the proportion of cases of statement of specific meanings to those

of statement of only general ones is almost 1 : 2; in the second it is 2 : 3. Combining the two groups together, the proportion of the cases of specified meaning to those of unspecified one comes to 4 : 7. In a little less than two-thirds of the cases where the roots denote a specific shade of meaning the dhātupāṭhas are content to mention only the general and broad meaning.[13]

Now we turn to another type of faulty definitions, viz. where a root is explained simply in terms of some noun derived from the very root which is under definition. Thus *aṇ, an* : *prāṇane, arj* : *arjane, i* : *adhyayane, iṣ* : *icchāyām, īrṣy* : *īrṣyārthaḥ īś* : *aiśvarye, uñch* : *uñche, kam* : *kāntau, kāṅkṣ* : *kāṅkṣāyām, kuc* : *saṁkocane, kuṭ* : *kauṭilye, kusm* : *kusmayane, kṛ* : *karaṇe, krap* : *kṛpāyām, kṣi* : *kṣaye.*

It will be seen that these definitions, since they merely repeat the term defined in the definition are not, by themselves, of any use towards understanding the denotation of the root. In our selected group of roots beginning with *t* we have the following instances (three partial) of this kind : 1 *tap* : *saṁtāpe (dāhe* V), 2 *tarj* (X): *saṁtarjane (bhartse* V), 3 *tāy* : *saṁtāna (-pālanayoḥ)*, 4-5 *tuḍ* (I and VI) *tūd*, 1 *toḍ* : *toḍane*, 6 2 *tuṣ, tūṣ* : *tuṣṭau* Kt H V (others *prītau*), 7 *tūḍ* (see √*tuḍ* above), 8 *tūr* : (*gati-*) *tvaraṇa hiṁsanayoḥ* P Kt H (V *syada* and *others tvarā* for *tvaraṇa*), 9 *tūṣ* (see √*tuṣ* above), 10 *tṛp* (VI): *tṛptau*, 11 *tṛ* : (*plavana-*) *taraṇayoḥ*, 12 *toḍ* (see √*tuḍ* above), 13 *tvakṣ* : *tvacane (tvaci grāhe* V).

In a total of 131 definitions there are 13 of this kind which makes the percentage to 10%.

Now consider the following pairs of definitions:

ad : *bhakṣaṇe;*	*bhakṣ* : *adane*
as : *bhuvi*	*bhū* : *sattāyām*
āp : *lambhane;*	*labh* : *prāptau*
īkṣ : *darśane;*	*dṛś* : *prekṣaṇe*
katth : *ślāghāyām;*	*ślāgh* : *katthane*
kup : *krodhe;*	*krudh* : *kope*

It will be seen that the definitions are interdependent. Whereas √*as* is defined in terms of √*bhū*, √*bhū* is itself defined in terms of √*as* only,

13. Some other cases, where a general meaning, instead of the specific one, is stated are: roots *niṣk, mas, śulb* and *śūrp* given with the meaning *māna* or *parimāṇa; nīl, piñj, śoṇ* and *śvet* with the meaning *varṇa; cūṣ* and *dhe* (along with *pā*) with the meaning *pāna.*

without an attempt being made to give an independent definition. In our group definitions of three roots belong to this type. They are :

1 *tarj* (*I*) : *bhartsane;*	*bharts* : *saṁtarjane.*
tṛp (*V*) : *prīṇane;*	1 *prī*: *tarpaṇe*
tyaj : *hānau;*	2 *hā* : *tyāge.*

There remains now one more feature which characterises a small number of definitions. Consider the following definitions.

klīb: *adhārṣṭye;*	*dviṣ* : *aprītau*
naś : *adarśane;*	*yu* : *amiśraṇe*
śiṣ : *asarvopayoge*	

These might be called *negative definitions.* In our group we have only two definitions of this type — and these two peculiar to single authors — √*tumb* : *adarśane* S and √*tṛn adāne* H.

Having seen the general trends in the matter of stating the meanings, let us now turn to one or two ineresting individual cases. With regard to the meaning of two roots *kag* and 3 *van* (P. Dh. I, 841) P and Kt. remark: '*nocyate*'[14]. The expression is subjected to more than one interpretation but the usually accepted one is that this means that no particular meaning of these two roots is here stated—either because the roots have too large a number of meanings (*anekārthatvāt*), or because the roots denote action in general (*krīyāsāmānyavācitvāt*).[15] Of the two other dhātupāṭhas which read the two roots, Kkd. favours the latter explanation and simply assigns the meaning *kriyāḥ* to the root *kag* and *vyāpṛti* to *van.* Kāśakṛtsna,, on the other hand, assigns *gati* to *kag,* and *smaraṇa* to *van.* All the other dhātupāṭhas drop the two roots alogether. It would seem that Bhīmasena (or whosoever else did the task of fixing the arthapāṭha along with him) was unable to ascertain definitely from the spoken language or the literature the meanings of these two roots which he found read in the Pāṇinian dhātup. and so admitted the fact candidly. Whether Kāśakṛtsna had actually some evidence before him which warranted his assignment of the two particular meanings, or whether it was only his personal opinion is more than we can say. It may only be pointed out, *en passant,* that a large portion of the unattested roots have the meaning *gati* assigned to them.

There is a parallel instance of two other roots, *kal* and *val* which, though there is no such statement in the dhātup. are regarded by tradition as sweetly vague in their denotation. They are described as *kavikāmadhenu,* coming as they do very handy to the poets.

14. In the case of √*van,* Mādh. Dh. reads *nopalabhyate* (for *nocyate*).

15. Kṣ: *'asyāyam artha iti nocyate, anekārthatvāt—nocyate iti yo'rthas tatrārthe kagir ity eke'.*—M (after giving the first interpretation of Kṣ): *'kriyāsāmānyam asyārtha iti yāvat. iha śāstre nocyate ity eke'.*

Another case is of a group of roots (P. Dh. X, 212-260) which are described as *bhāṣārthāḥ* in some Dhātupāṭhas (P (M S) J Kk Kt) and as *bhāsārthāḥ* in others (Kṣ Śā H V). Besides the fact that it has come down in two versions, a shorter one (31 roots, M J Kk Kt Śā) and a longer one (49 roots, Kṣ S H V), C. Dh. contains only a single root out of these, viz. *lok* (C. Dh. X, 5b), and that too in a different meaning. The meaning *bhāṣā (°sā) rthāḥ* is further subjected to a variety of interpretations.[16] On the analogy of meanings like *gatyartāḥ, kṣaraṇārthāḥ* etc. *bhāṣārthāḥ* should mean 'having the meaning of 'to speak' and *bhāsārthāḥ* 'having the meaning of "to shine",' the expression being taken as a predicate to the group of roots (*paṭ puṭ* etc.). The Dhātusūtra would then thus be translated: "The roots *paṭ...etc.* mean 'to speak' (and form their present stem with *ṇic* when they are used transitively)."[17] According to another interpretation *bhāṣā— (°sā) rthāḥ* is an attributive adjective and *ṇicam utpādayanti* the predicate of the group of roots which would mean that the roots *paṭ* etc. form their present stem with *ṇic* when they are both *bhāṣā (°sā) rtha* and at the same time used transitively. According to a third interpretation a *ca* is understood after *bhāṣā (°sā) rthāḥ* with the same predicate as before and means that the roots *paṭ* etc. and also *bhāṣārtha* (like *gad, vad, brū* etc.) or *bhāṣārtha roots* (like *kāś, indh, dīp,* etc.) (read in the first nine classes) form their Present-stem with *ṇic* optionally. Yet a fourth interpretation, recognizes only the reading *bhāṣārthāḥ* and interprets it thus: 'The roots *paṭ* etc. have those meanings which are current in the language (*bhāṣā*)' meaning probably that these roots have no fixed meanings by tradition or convention but to ascertain their meanings they are to be referred to the actual usage of the language (at a particular time and place). Of the two readings, *bhāṣārthāḥ* is found in the older dhātupāṭhas and so has a better claim to acceptance. As regards the interpretations, the first can be rejected because the usual expression for *bhāṣā* 'speech' is *vyakta śabda* (or *vacana* or *vāk*) (and that for *bhāsā* 'shining' is *dīpti*). The second interpretation is also inadmissible for the same reason and also for another one viz. that none of such roots as are attestable from this group either means 'to speak' or 'to shine'.[18] The third interpretation is also ruled out because it leaves the

16. Kṣ.: *'ete sakarmakā bhāsārthā ṇicam utpādayanti ..... paṭādayaḥ sakarmakāḥ svārthe ṇicam utpādayanti, bhāsārthāś ceti Pārāyaṇam: bhāsayati diśaḥ, dīpayati, indhayati, prakāśayati'.*—M: *bhāṣārthāḥ. bhāsārthā ity eke. bhāsārthā dīptyarthā. te'py atrety eke'.*

17. This follows from the circumstance that the *bhaṣā (°sā) rtha* group forms a subclass of the bigger group *āsvadīya* which, as a whole, forms its Present-stem with *ṇic* only when used transitively (*ā svadaḥ sakarmakāt*).

18. Thus, *pāṭayati* 'tears' *laṅghayati* 'leaps, disregards', *maṁhayati* 'gives', *gopayati* 'guards', *dhūpayati* 'perfumes', *tāḍayati* 'strikes', *pothayati* 'crushes, overpowers', *lokayate*

group of roots without any meaning and also because it imports a *ca* without any warrant. The last interpretation is, therefore, the only one which is satisfactory. So these roots also like the above mentioned roots *kag, kal, van* and *val* seem to have been looked upon as of uncertain meaning and so the grammarians did not want to be dogmatic about them. It may also be mentioned in this connection that the tendency to use causativum (which has the same form as the roots of the 10th conjugation) for the simplex increased in the later age.

To take a resumé: Generally only one meaning is assigned to each root. The statement of meanings, in the large majority of cases, is synonymous, including also cases of repetition and interdependence. Besides, there is a small number of cases of negative definitions. There are cases where there is an attempt at real and independent definitions, but such cases form only a small minority. Also in those cases where a distinction of the general and specific obtains, the dhātupāṭhas in two out of three cases are content to statee only the broad and the general idea. It will thus be seen that the statements of meanings in the dhātupāṭhas are by no means strictly logical definitions. But, it must be added, they were neither intended to be so. All that the dhātupāṭhas wanted was to indicate that the root was capable of denoting *some* action (*kriyāvācitvam ākhyātum*). This might have been partly due to the fact that most of the grammars define a dhātu as 'a word expressive of an action' (*kriyārtha* or *kriyāvācaka*) and so in order to justify technically the inclusion of a root in the dhātupāṭha it was necessary for them to show that it indicated some action. This they did in a way which was just sufficient for their purpose, without bothering to go into the exact and specific meaning. This task was left to the commentaries who—at least in a few cases—worked out the different shades of meanings. In this chapter we have restricted our attention purely to the dhātupāṭhas. In the next chapter we will take into consideration the commentaries also without which the dhāṭupāṭhas by themselves cannot be properly understood. In this respect the dhāṭupāṭhas also stand more or less on the same footing as the Sūtrapāṭhas and so the dictum '*vyākhyānato viśeṣapratipattiḥ*' applies to the dhātupāṭhas also.

We have confined ourselves in this chapter to the major part of the definitions which represent agreement. In the next chapter we will consider the remaining small part of the definitions which shows variations and we will see how these differences arose and also if and how the dhātupāṭhas interacted upon one another.

'sees', *nādayati* 'makes resonant', *tarkayati* 'infers', *vartayati* 'causes to turn, pass (time etc.)', *vardhayati* 'augments, fosters', *nāṭayati* 'represents dramatically' etc.

CHAPTER VI

MEANINGS: VARIATIONS IN THE DEFINITIONS

VI

MEANINGS : VARIATIONS IN THE DEFINITIONS

In the last chapter we noticed the general trends in dhātupāṭhas in the matter of the statement of meanings, restricting the scope of our enquiry to the bulk of the common definitions. In this chapter we shall turn our attention to the remaining section of the definitions, i.e. the one which exhibits variations among the different dhātupāṭhas in their statement of meanings. Here we shall also take into account the commentaries which are meant to explain and supplement the definitions in the dhātupāṭhas. The variations are varied in nature and so can be classified according to the nature of the cause of variation. We first take up:

(1) *Variations due to orthographical confusion* :

The following letters in the Devanāgarī are often confused by the scribes: च, व and ब; प, म and य; म and स (also in the Bengali). Similarly in the Śārada ध and व are sometimes confused. There is also a confusion of the sibilants in the pronunciation, resulting in the confusion in writing also.

(i) The following variations in the definitions are due to the confusion between च and व (also ब):

√ *kev, khev, gev, glev, sev* etc. : *secane* MS Kk Kt; *sevane* others.

√ 1 *sac*: *sevane* Śā V; *sevāyāṁ* J; *secane* others.

√ 1 *tuñj*: (*hiṁsāyāṁ*) *pālane ca* P (Kṣ M) J; *balane ca* Kt Śā; *calane ca* Kk; *valane ca* H; *prāṇē'vane* V.

It seems that in the case of the roots *kev khev* etc. the original reading is *sevane* as indicated by √ *sev* which is one of the roots defined. Similarly in the case of √ *sac* also *sevane* 'enjoy, associate, be familiar with' seems to be the genuine reading although it is found only in two dhātupāṭhas.

Consider the following two cases:

√ 5 *vid*: *cetanākhyānanivāseṣu* (°*vivādeṣu* Kṣ) S Kt Śā H; *vedanākhyānanivāseṣu* M; *vedanāyām* C; *vetanāśyānanivāsaneṣu* Kk; *cetanākhyānavāde* V.

√*cit* (X): *saṁcetane* P; *saṁvittau* J; *saṁdehe* Kk; *saṁvedane* Kt Śā H; *jñāne* V.

Here it seems that *c* of *cetana-* (°*nā-*) was first confused with व and as *vetana-* (°*nā-*) did not make any meaning त was changed into द so as to read *vedana* (°*nā*). The intermediate stage *vetana-* (°*nā*) is found in Kk.

There are two more possibilities in this case. त and द might have been first confused (cf. *saṁtāna-kriyāyām* and *saṁdāna*° of √*sattra*) resulting either into *cetana* > *cedana* > *vedana* or into *vedana* > *vetana* > *cetana*. Secondly, considering that *cetana* and *vedana* do not much differ in meaning, they might have arisen independently without any orthographical confusion being involved.

(ii) Confusion between ष and य:

√*tas* and *das*: *upakṣepe* C Kk; *upakṣaye* others (*kṣaye* J).

√*drāh*: *nidrākṣaye* P (M S) Kk Kt; *nikṣepe* Kṣ J Śā H; *nidrākṣepe* cited by H; *jāgare nikṣepe* V.

In the first case *upakṣaye* 'be exhausted' is undoubtedly the original reading as it goes well with √*das*. √*drāh* being one of the unattested roots, it is difficult to ascertain the original reading. It may be noted that V gives both the meanings (*jāgare* representing both *nidrākṣaye* and *nidrākṣepe*, there being no difference of meaning).

(iii) Confusion between म and स:

√*drāgh*: *āyāme* (*sāmarthye* ca) P (M S; also cited by Kṣ); *āyāse* (*sāmarthye* ca) Kṣ C J Kk Kt Śā H; *śramāyāma- śaktiṣu* V.

As √*drāgh* is evidently intended to serve as a base for the derivatives *drāghiman* 'length', *drāghiṣṭha* 'longest' etc., *āyāma* 'lengthen, stretch' is evidently the genuine reading although it occurs only in the Pāṇinian dhātup. Here again V reproduces both the variants (*śrama* = *āyāsa*).

(iv) As a case of confusion between म and य the following may be cited:

√4 *muc*: *pramocane* (*mokṣe* V). *'prayojana ity anye'* remarks H. Thus *pramocane* > *prayocane* > *prayojane*.[1]

1. Here it is also possible that च was confused with ज first, giving *pramocane* > *pramojane* > *prayojane*.

(v) Confusion between ण and न:

√2 *tras*: *dhāraṇe* P Kk (also cited by H); *vāraṇe* J Kt Śā H (also cited by Kṣ); *'grahaṇa ity eke'* remarks further Kṣ; *dhṛtau grahe niṣedhe* V.

trāsayati (3 sing. Pres. ind. of √2 *tras*) 'frightens, scares' may better be regarded as the causal form from √1 *tras* 'tremble, fear'. On this view *vāraṇe* would seem to be the genuine reading. (The addition of *grahaṇe* is due to the confusion of √2 *tras* with √2 *gras*.).[2] Here also V records all the variants.

(vi) Confusion of sibilants:

√*jut* (v. l. *jyut*) *yut*: *bhāsane* P Śā H; *bhāṣaṇe* C Kk Kt; *dīptau* H V.

√*śumbh*: *bhāsane* Kṣ (also cited by S); *bhāṣaṇe* others.

√*śubh*: *bhāṣaṇe* P (Kṣ om.) Kk.

It will be easily seen that in all these cases *bhāṣaṇe* is wrong writing for *bhāsane*. The reading *bhāsārthaḥ* of Kṣ Śā H V for *bhāṣārthaḥ* (P.Dh. X 212-263) of P (M S) J Kk Kt is likewise a case of the confusion of the sibilants.

(vii) Miscellaneous :

√1 *īṣ* (*īrṣ* Kk): *gatihiṁsādāneṣu* Kk Kt; *°sādarśaneṣu* others (*sarpaṇe dānekṣahiṁse ca* V.

√1 *ṛj*: *gatisthānārjanopārjaneṣu* M S; *gatau* C Kk Kt; *gatisthānorjaneṣu* J; *°nārjanorjaneṣu* Kṣ Śā H; *gatisthairyorjanārjane* V.

√*kaṁs*: *gatiśāsanayoḥ* P (Kṣ S); *°śātanayoḥ* Kk Kt Śā H; *°niśānayoḥ* M; *gatau* C; *°saṁtānayoḥ* J; *gatau śāte ca* V.

√3 *kṛp*: *avakalpane* Kk Śā; *°kalkane* others (= *bhāvakaraṇe* J; *yutau cinte* V).

√1 *jal*: *ghātye* Kṣ Śā H; *dhānye* M C J Kk Kt; *ghānye* V; *ghātane* S.

Kṣ explains *ghātyam* as *jaḍatvam, ataikṣṇyam ity arthaḥ*. S says *ghātanaṁ taikṣṇyam iti Svāmī* (thus assigning quite the opposite meaning). SK also says: *ghātanaṁ taikṣṇyam*. *dhānya* is explained variously as 'be

2. Following the dhātup. MW (p. 457) gives our 2 *tras* as a separate root (= 1 tras in his Dictionary) and assigns to it the meaning *'to seize'* quoting Mṛcchakaṭika iii 17/18. But all authorities translate *trāsayitvā* there by 'having frightened'.

happy' (= *dhanyatvam*), 'barley' (i.e. some action connected with barley), 'any action useful to life' (*jīvanopayogikriyā*), 'to cover' (cf. *jāla* 'net'); lastly 'to be rich' (*dhanasya bhāvaḥ*).

In this plethora of readings and their interpretations it is difficult to ascertain the genuine reading. The difficulty is aggravated by the circumstance that the root is not attested in the literature. I am inclined to believe that the root is intended for deriving the word *jaḍa*[3] 'cold, stiff; dull, stupid' on the maxim *ḍalayor abhedaḥ* (cf. Kṣ). Only I prefer the reading *ghānye* (preserved in V only) as being nearest to the *jaḍatva*, the desired meaning.

√ day : *dānagatirakṣaṇahiṁsādāneṣu* P Kk Kt; *rakṣaṇe* C; *dānagatirakṣaṇahiṁsādahaneṣu* J Śā H; *grahaṇe gatau vadhe dāne'vane* V.

There are three possibilities here : (1) *-hiṁsādahaneṣu* may be purely a scribal error for °*dāneṣu;* (2) *-hiṁsādāneṣu* might have been deliberately changed to °*dahaneṣu* to avoid an alleged repetition of *dāna* (*-hiṁsādāneṣu* being misunderstood as *hiṁsā-dāneṣu* instead of as *-hiṁsā-ādāneṣu*); or (3) *-hiṁsādahaneṣu* might be representing an independent tradition, particularly as the meaning *dahana* is found to have been assigned to √*day* already by *Yāska*.[4]

It is interesting to note that the same dhātupāṭhas, viz. J Śā H substitute *dahana* for (*ā*)*dāna* also in the list of meanings of the root *av*.

√2 *naṭ* : *avasyadane* P J Śā H; *nāṭye* C; °*skandane* Kk SK; °*spandane* Kt (also Wg.); *bhraṁśe* V.

√1 *muṇḍ* : *mārjane* P (M S) C Śā H; *śuddhau* J; *majjane* Kṣ Kk Kt; *magne* V.

The almost universal habit of the Northern scribes to double a consonant following *r* might be responsible for the variation *mārjana*: *majjana* (< *mārjjana*).

√*rag* (v.l. *rak, lak* and *lag*): *āsvādane*. '*āsādana iti Durgaḥ* (*ity anye* H)' Kṣ H; *svāda āpane* V.

As *rāgayati* 'relishes, enjoys' is evidently a denominative from *rāga*, *āsvādane* is the genuine reading. As usual V records both the readings (*āpana* = *āsādana*).

3. This derivative is cited by Kṣ. among the derivatives.
4. Nir. IV, 47.

√*cībh, śībh, śalbh*: *kathane* J Kk; *katthane* others. *Kathane* is evidently wrong writing for *katthane*.

(viii) Metathesis of letters:

√*tak*: *hasane*. '*sahana iti Durgaḥ* (*ity eke* H)' Kṣ H; *sahane hāse* V.

√2 *cyu* (*cyav* Kk): *hasane* P (M S) Kk kt (also cited by Kṣ H); *sahane* J Śā H; *hase sahane* V.

There is a similar confusion between *sahana* and *hasana* in the case of the roots 5 *dhṛṣ* and 1 *mṛṣ* — in both these latter cases *hasane* being evidently wrong writing. √*tak* has occurred in the literature in the sense '*speed, rush*'. V records both the variants in the case of the roots *tak* and *cyu*.

√*mas*: *parimāṇe* P (M S) C J Kk Kt (also cited by H); *pariṇāme* Kṣ H; *paribhāṣaṇe* Śā; *parimāṇe parīṇāme* V.

If the root was given to serve as a base for the noun *mas* 'moon' (literally 'the measurer (of time)'), also 'month' and *māsa* 'month', then *parimāṇe* should be the genuine reading.[5] Here also, as usual, V records both the meanings.

In our selected group of roots beginning with *t*, out of a total of 17 roots 12 (i.e. 7%) are affected by wrong writing in the matter of the definitions. Of these, four (viz. 1 *tak, tas,* 1 *tuñj* and 2 *tras*) have been already mentioned. The remaining eight are: 1 *taṇḍ, tark, tij* (X), 2 *tuñj,* 3 *tuñj, tumb* (X), *tṛṇ* and *traṁs*.

(2) *Variations due to the use of synonyms*:

Older definitions are replaced by synonymous expressions sometimes with a view to giving greater clarity to the definitions, sometimes in order to effect economy (*lāghava*) of expression, and sometimes apparently without any such reason, the change being due to sheer personal predilection. We take up the last category first.

(i) Use of synonyms out of personal predilection:

√*kuk*: *gṛhītau* J; *ādāne* others.

√*kram*: *pādaviharaṇe* C; *pādavikṣepe* others (*gatau* V).

5. Kṣ derives the word *māsa* from this root. Similarly, commenting on the word *candramas* (Amar. 1.2.20) he derives it thus: *āhlādanāc candraś cāsau mimīte kālam masyati pariṇamate vā māś ca, candramāḥ*.

√*kup* : *roṣe* Kk Kt; *kope* V; *krodhe* others.

√*krudh* : *roṣe* Kk Kt; *kope* others.

√*cyut* : *kṣaraṇe* J Śā; *kṣare* V; *āsecane* others.

√2 *tuṣ* : *prītau* P C Śā; *toṣaṇe* J; *puṣṭau*[6] Kk; *tuṣṭau* Kt H V.

√*nud* : *avakṣepe* Śā; *preraṇe* others.

√*so* : *avasāne* C; *nāśe* V; *antakarmaṇi* others.

√*sas* : *sasane* Kṣ; *svapne* others.

√*vyath* : *cala-bhītyoḥ* J; *bhaya-calanayoḥ* others.

√*hlād* (also √*bhand*) *saukhye* Kk Kt; *sukhe* others.

Substitutions like the above, it will be seen, do not seem to have been motivated by a desire to make the meaning clearer, or to save syllables. On the contrary some of them, like *avakṣepe* (for *preraṇe*), *gṛhītau* (for *ādāne*), *sasane* (for *svapne*) are definitely less intelligible than the older definitions. Similarly √*so* : *avasāne* is merely a repetitious definition in place of the older independent one, viz. *antakarmaṇi*.[7] These variations have therefore to be regarded as caused by mere individual predilection.

As to such cases from our group of roots beginning with *t*, √*tuṣ* has been already cited. The other cases are : *sruti* (for *kṣaraṇa;* √*tip, tep* J), *tyāga* (for *hāni;* √*tyaj* J), *prīṇana* (for *tṛpti*: √*tṛp;* many Dhātupāṭhas), and *bhaye* (for *udvege* or °*jane;* √1 *tras* C H V).

√*katha* : *vākyaprabandhe* P (M S) C Kk Kt Śā H V (cited by Kṣ also); °*pratibandhe* Kṣ (cited by H also); *vadane* J (cited by H also).

√*khard* : *dandaśūke* P Śā; *daśane* J Kt H V; *daṁśane* Kk.

√*dih*: *upacaye* ('*upacayo'tra lepaḥ*' Kṣ) P C Kk Kt; *lepe* J H; *upadehe* Sā; *lipi* V.

√2 *duh* : *prapūraṇe* P C Kk Kt Śā; *kṣaraṇe* J H; *duhi* V.

prapūraṇa, explained as *pūraṇābhāvaḥ* (Kṣ KS) is a stock-example of the grammarians used to illustrate the phenomenon that sometimes in combination with a prefix a root denotes a meaning which is diametrically

6. Probably a scribal error for *tuṣṭau*.

7. This is by no means a solitary case. There are many other instances of this type, e.g. *jarāyām* for *vayohānau* (√*jṝ, jur*), *drohe* for *jighāṁsāyām* (√*druh*), *praśne* for *jñīpsāyām* (√*prach*), *prasave* for *prāṇigarbhavimocane* (√*sū*) etc; while *vihasane* for *kiṁciddhasane* (√*smi*) is positively bad.

opposed to its original meaning.[8] It is further explained by Bālam. Thus: *ūdhaḥpūraṇapratikūlībhāva ity arthaḥ. ūdhasaḥ sakāśāt kṣāraṇe iti yāvat.*

The definition *prapūraṇa*, which was evidently taken as referring to the udder, must have given some headache to the commentators in eking the desired meaning out of it since, far from being filled, the udder is actually emptied in milking. The difficulty was tided over by supposing that the upasarga *pra-* here vests the verb with an opposite meaning. One wonders, however, whether it was not the udder but the pail (which is filled in milking) that was in the mind of the author when he defined √*duh* as *prapūraṇa*. Two other explanations also suggest themselves here. *Prapūraṇa* may not have been intended in its ordinary sense of '*filling up*', but of '*pouring forth*'. (It is true that this meaning is not attested.) Lastly, there is also the possibility of *prapūraṇa* being here used in a figurative meaning, viz. 'fulfilling (desire), which is also one of the meanings of √*duh*.

√*dhvṛ*: *hūrchane* P C Kk Kt; *kauṭilye* J Śā H V. (It may be noted here that J Śā H do not effect this simplification in the case of √*kmar* where they have retained *hūrchane*.)

√*pīḍ*: *avagāhane* P (M S) Kk Kt (also cited by Kṣ); *gahane* ('*gahanaṁ bādhā*' Kṣ) Kṣ J Śā H; *bādhāyām* C; *bādhagāhe* V.

√*bhal*: *ābhaṇḍane* ('*ābhaṇḍanaṁ nirūpaṇam*' Kṣ) all (ex. V); *nirūpaṇe* V.

√*rabh*: *rābhasye* ('*rābhasyaṁ kāryopakramaḥ* Kṣ H) all (ex. C); *ārambhe* C.

In the above cases it is evident that the older definitions are not so clear as the new ones. They might have been easily understood in their days but in course of time they gradually seem to have become obscure so that need was felt to substitute easier definitions in their place. Kk Kt however almost always retain the older definitions of the P. Dh. while the younger schools of J Śā H introduces new definitions. C takes a middle position, sometimes retaining the older definitions, and sometimes introducing new ones.[9]

8. Cf. the Kārikā 7 at the end of the Śā. Dh.:
prapūraṇaṁ duher arthaḥ, pūraṇābhāva eva saḥ
prasthānaprasṛtipade viruddhārthasya darśanāt
saṁbhavavyabhicārābhyāṁ syād viśeṣaṇam arthavat.

9. Two other definitions, viz. *nāṭye* for *gātravikṣepe* (√*nṛt*), and *palāyane* for *kutsayāṁ gatau* (√*drā*) introduced by C may also be noted.

One or two other peculiarities regarding the use of synonyms may best be mentioned here. In one case (√*paṭh*) C substitutes *uccāraṇe* for *vyaktāyāṁ vāci*, while in the remaining nine cases (roots *gad, cakṣ, jap, jalp, brū, bhāṣ, rap, lap* and *vad*) he uses *vacane* to convey the same meaning. J often prefers forms in *-ti* like *kusmiti, gṛhīti, dṛṣṭi, parivṛtti, prakhyāti, vilikhiti* (otherwise rare), etc., to those in *-ana* (*kusmayana, grahaṇa, darśana*, etc.) of others. The use of synonyms in V is also somewhat peculiar and deserves special notice. Under the exigencies of metre V has very often used expressions which are not found in other dhātupāṭhas. Thus (to quote only a few instances) he uses *dhvani* (20 roots) and *dhvana* (8 roots) for *śabda; vadha* (94 roots) for *hiṁsā; sarpaṇa* (20 roots) *sarpa* (7 roots), *vraja* (10 roots), etc., for *gati*, etc. Obscure words like *raki* (Kkd. 94) 'taste', *loṭha* (Kkd. 151) 'roll' are also found used for similar reasons.

In our group of roots beginning with *t* following synonymous expressions occur in V:

avane for *pālane* (√*tuñj*), *āhatau* for *āghāta* (√2 *taṭ*, 1 *taḍ*) and for *tāḍane* (√1 *taṇḍ*), *icchāyām* for *kāṅkṣā°* (√*tam*), *itau* for *gatau* (or *gatyartha;* √*tañc, tṛkṣ, tvañc*), *kārśye* for *tanūkaraṇe* (√1 *takṣ, tvakṣ*), *kledane* for *ārdrabhāve* (or *ārdrī°;* √*tim, tīm*), *jaihmye* for *kauṭilye* (√*tuṇ*), *tṛṣi* for *pipāsāyām* (√*tṛṣ*), *tviṣi* for *bhāsārtha* (√2 *taḍ*), *dāhe* for *saṁtāpe* (√1 *tap*), *dīptau* for *bhāsārtha* (√*tark*), *dausthye* for *kṛcchrajīvane* (*taṅk*), *dhvāne* for *śabde* (√*tus*), *niṣedhe* for *vāraṇe* (√2 *tras*), *prāṇe* for *balane* (√1 *tuñj*), *prīṇane* for *tṛptau* (√*tṛph, tṛmp, tṛmph*), *bhakṣe* for *adane* (√*tṛṇ, tṛn*), (with CH) *bhaye* for *udvege* or *°jane* (√1 *tras*), *bhartse* for *saṁtarjane* (√*tarj* X), *bhāyām* for *bhāsārtha* (√3 *tuñj*), *bhāse* for *dīptau* (√*tviṣ*), *bhede* for *toḍane* (√*tuḍ* VI), *vadhe* for *toḍane* (√*tuḍ*, 1 *tuṇḍ, tūḍ*) and for *hiṁsāyām* (√*tup, tuph*, 1 *tump tumph* (all I and VI), *trup, truph, trump* and *trumph*), *vege* for *tvaraṇe* (√*tur*), *ścyuti* for *kṣaraṇe* (or *°ṇārtha;* √*tip, tep*), *stṛtau* for *āvaraṇe* (*tuttha*), *syade* for *gatitvaraṇe, tvaraṇe* or *tvarāyām* (√*tūr*) and for *saṁbhrame* (√*tvar*), and *hriyi* for *lajjāyām* (√*trap*).

3. *Additions*:

It has been already remarked that the list of meanings in the dhātupāṭhas was not looked upon as exhaustive and that it was regarded as open to additions in accordonce with the actual usage of the language. Below are given some instances of such additions by the later dhātupāṭhas:

√1 *gal*: *bhakṣe. "sravaṇe'pi, anekārthatvāt"* Kṣ; *bhakṣe srāve* V; *bhraṁśe'dane galati* ĀC,

√*cakṣ*: *vyaktāyāṁ vāci* (*vacane* C; *vade* V). "*ayaṁ darśanakarmā ca*" S (also S K). "*vyaktavāci bhavec caṣṭe dṛṣṭau*" AC.

√*car*: *gatyarthaḥ* P C Kk Kt; (*gatau*) *bhakṣaṇe ca* J Śā H; *gamane'dane ācāre* V.

The additional meaning *bhakṣaṇa* which is introduced by the later schools J Śā H is admitted into the P.Dh. by all the commentators. Cf. "*carir bhakṣaṇe'pi*" Kṣ; "*caratir bhakṣaṇe'pi paṭhyate*" M; '*caratir bhakṣaṇārtho'pi*' S. That the three sentences do not form part of the dhātup., but are remarks of the commentators is clear from the form in which the root is mentioned here—with *ik* in Kṣ and with *ṣtip* in M S. In the Kāśikā the root is mentioned twice 3.1.100; 3.2.184) with '*gati-bhakṣaṇayoḥ*' as the meaning where, it seems, the author had the later dhātupāṭhas in mind.[10]

Lastly, *ācāre* is a further addition of V.

√*tam*: *kāṅkṣāyām. khedecchayoḥ* V; *glānau ca tāmyati, kāṅkṣāyām api* ĀC.

√*tark*: *bhāṣā* (°*sā*)*rthaḥ* (= *dīptau* V). "*ayam ūhe'py adhīyate*" M (also cited by S); "*vitarke'py ayam*" Dgd.

√*laṅgh*: *gatyarthaḥ* (or *gatau*). "*bhojananivṛttau ca*" Kṣ; *abhuggatyoḥ* V; *gatau laṅghata ity etan nivṛttau bhojanasya ca* AC.

√*vap*: *bījasaṁtāne* P J Śā H; *bījanikṣepe* C; *bījatantusaṁtāṇe* Kk Kt; *muṇḍa-bījoptyoḥ; bījasaṁtānaṁ kṣetre bījavikaraṇam. ayaṁ garbhādhāne'pi dṛśyate ..... chedane'di dṛśyate*[11] ..... S; *vapaty uptau ca muṇḍane* AC.

Below are given some instances of additions peculiar to V:

√2 *kiṭ*: *gatau bhaya-bhīmayoś ca* V; *gatau* others.

√1 *kit*: *saṁśayecchā-vāsārogye* V; *nivāse* (*rogāpanayane ca*) others.

√*kak*: *icchā-garva-cāpale* ("*garvaḥ kaiścin na manyate*" Dgd.) V; *laulye* (*laulyaṁ satṛṣṇatvaṁ cāpalaṁ* ca Kṣ) others.

√*tṝ*: *tāre'bhibhave plutyām* V; *plavana-taraṇayoḥ* others.

√*bhaj*: *bhāga-sevayoḥ* V; *sevāyām* others.

10. Cf. the remarks of the Pk. (p. 103) in this respect: "*cara gatau bhakṣaṇe ca. yathā tu 'bhakṣaṇe'pi prayujyate cariḥ' iti Maitreyarakṣitaḥ, tathā nāyaṁ pāṭho'sti, api tv arthavaśāt kenacit prakṣipta iti gamyate: tathā 'cara gatibhakṣaṇayor' iti*".

11. Cf. the remark of the Bh. *vapiḥ prakiraṇe dṛṣṭaś chedane cāpi vartate*, already cited in Ch. IV.

Whenever some predecessor of Vopadeva (usually Kṣ or H) mentions some variant meaning, either citing the authority by name or under the general term *eke, anye* 'some', etc. Vop. usually incorporates both the meanings, evidenlty thinking that both were equally valid, and without giving any impression that originally the two meanings were variants. Following are some such instances :

√3 *aṭṭ*: *anādare. 'alpībhāva ity eke'* H; *taucchye'nādare* V (*taucchye* = *alphībhāve*).

√2 *ark*: *stavane* (v. l. *stutau*). *'tapana ity eke'* Kṣ; *tāpa- stutyoḥ* V.

√*ard*: *gatau yācane ca. 'yātane ca ity eke'* Kṣ; *'yācanasthāne yātana ity eke paṭhanti'* H; *yācanā-gati-yātane* V.

√3 *ghṛ*: *srāvaṇe* (v. l. *sra°*). *'ghṛ sṛ āvaraṇa iti pūrve peṭhuḥ'* Kṣ; *seke chādane* V (*chādane* = *āvaraṇe*).

√*bṝ*: *bharaṇe Śā; 'varaṇe ity anye'* H; *vṛtyāṁ bhṛtyām* V.

√*rak*: *āsvādane*: *'āsādane iti Durgaḥ'* Kṣ; *'āsādana ity anye'* H; *svāda āpane* V (*āpane* = *āsādane*).

While we are on the subject of additional meanings in Vop., yet another type of addition may be noted here. The various explanations of meanings, advanced by Kṣ, which were intended either to make the meanings alternative or to bring out various aspects of one and the same meaning, have been similarly incorporated by Vop. in his dhātup. Following are some such instances :

√*aṅgh*: *gatyākṣepe. 'gatyākṣepo vegagatir, gamanārambho vā'* Kṣ; *'gate nindārambha-javeṣu* V.

√*kak*: *laulye. 'laulyaṁ satṛṣṇatvaṁ cāpalaṁ ca'* Kṣ; *icchā-garva-cāpale* V.

√*kav*: *varṇe. 'varṇanaṁ varṇaḥ, śuklādiś ca'* Kṣ; *stutau varṇe* V.

√*phakk*: *nīcair gatau. 'nīcair gatir mandagamanam, asadvyavahāro vā'* Kṣ; *asadvyavahāre śanair gatau* V.

√*majj*: *śuddhau. 'śuddhyā snānaṁ vruḍanaṁ ca lakṣyate'* Kṣ; *snāne vruḍane* V.

In the first two cases, besides reproducing the explanations of Kṣ, Vopadeva has contributed some new meanings also.

Durgādāsa, in his commentary on the Kavikalpadruma, often cites additional meanings. Below are given some instances:

√*mnā*: *'abhyāse'. kvacid anyārthe'pi. tvām āmananti prakṛtim iti* (Kumār. 2.13).

√1 *hā*: *'gatau'. dhātūnām anekārthatvād unnayanārthe'pi.*

√*lpī*: *'śliṣi'. dhātūnām anekārthatvād ayaṁ prāptyarthaś ca.*

√1 *dhru*: *'sthairye'. anekārthatvād dhiṁsāyām api .....*

√1 *kaṇḍ*: *'darpe.' anekārthatvāt tuṣāpanayane'pi.*

√3 *guṇḍ*: *'veṣṭe'. anekārthatvāc cūrṇīkaraṇe'py ayam.*

√2 *vidh*: *'vidhau'. anekārthatvāc chidrīkaraṇe'py ayam.*

√*vāś*: *'śabde'. anekārthatvād āhvānārthaḥ.*

√*kuṣ*: *'niṣkarṣe'. niṣkarṣa iyattāparicchedaḥ anekārthatvān niṣkāsanārthaḥ.*

√2 *śaṁs*: *'hiṁsā-stutyoḥ'. anekārthatvāt kathane'py ayam.*

The above examples are enough to show that the meanings in the dhātupāṭhas were supplemented from time to time. As indicated in the chapter V, some of the additional meanings in the P.Dh. (indicated by the conjunction *ca*) might be later additions but, as a rule, the additions do not appear in the body of the dhātupāṭha — not even in J Śā H. This process of addition becomes markedly evident first in the commentaries like Kṣ (and H) from which it has spread to the Kkd. and related works like AC. Another point to be noted regarding these additions is that the newly added meanings e.g. *darśana* (√*cakṣ*), *bhojananivṛtti* (√*laṅgh*), *ūha* (√*tark*) are generally such as are confirmed by their attestation in the language. This again shows that it was the usage of the language that was regarded as the ultimate authority, and not the mere text of the dhātup.

In the group of roots beginning with *t*, there are 17 roots which show additions of meanings. Of these, three viz. *tam, tark and tṝ* we have already seen. Of the remaining fourteen, twelve viz. *tup, tuph,* 1 *tump, tumph* (cl. I; the same recur also in cl. VI), *trup, truph, trump* and *trumph* are peculiar to Kk. The remaining two are 2 *tap* (Kk V) and *tay* (Kṣ V Śā H V).

4. *Omissions of Meanings*:

As against the additions, the omissions are only a few (excepting, of course, the noteworthy case of C. Dh. which makes it a rule to record only one meaning for a root), and these too, mostly, are of a doubtful nature; i.e. it is not always easy to decide whether the absence of meanings in some dhātupāṭhas is to be regarded as due to omission (either intentional or

accidental), or whether their presence in others is a result of addition. This is so because the meanings in P. Dh. have occasionally undergone addition at the hands of its commentators under the influence of other schools. Here are some instances of apparent omission :

√1 *div*: *krīḍā-vijigīṣā-vyavahāra-dyuti-stuti-moda-mada-svapna-kānti-gatiṣu P* (M S) Kk; *krīḍāyām* C; *krīḍā-jayecchā-paṇi-dyuti-stuti-* (J om. — *stuti-*) - *gatiṣu* J H; *krīḍā-vijigīṣā-vyavahāra-dyuti-stuti-* (Kt adds *kānti*) - *gatiṣu* Kṣ Kt Śā; *jigīṣecchā-paṇi-dyutau krīḍā-gatyoḥ* V.

Here it apparently seems that the meanings *moda, mada, svapna* and *kānti* which are recorded in the P.Dh. as found in M (and, after him in S) and confirmed in Kk are dropped in the other dhātupāṭhas. But since these meanings are not given by Kṣ, a contemporaneous, if not slightly older, commentator of P.Dh., it is possible that these meanings first appeared in Kk which were later borrowed by M and incorporated in P.Dh.

√*nam*: *prahvate* Kṣ J H; *prahvatve śabde ca* M C; *prahvatve śabde* S Kk Kt Śā; *śabda-natyoḥ* V.

Here the meaning *śabda* is found in all the dhātupāṭhas excepting J H, and the P.Dh. as found in Kṣ. This is, therefore, apparently a case of omission in Kṣ J H, and not of addition in the others. J, who was concerned only with the spoken language (*bhāṣā*), might have dropped the meaning *śabda* considering it as applying only to the language of the Veda, since that meaning was not met with in the language of the day (*cf. śabdārtho na bhāṣāyām* Dgd.). The omission in Kṣ is probably due to the influence of J. H, as usual, follows Kṣ.

Of these dhātupāṭhas which give both the meanings, some read *ca*, while others dispense with it. Now the question is: Are we still to understand, in the latter case, that two different meanings are intended even in the absence of the conjunctive *ca* ? Or is one of the words, viz. *prahvatve* an adjectival expression qualifying the other,[12]—the whole expression thus meaning 'to utter words of obeissance (like *abhivādaye*, or *namo namaḥ*)'? I am inclined to accept the second interpretation because √*nam*, as said above, has not occurred in the meaning of '*sound*' pure and simple. On the contrary its secondary meaning of 'word accompanying a gesture of salutation' is only too well known.

12. The *viṣaya-saptamī* of the Sk. grammarians. *kutsāyāṁ gatau* and *spardhe śabde* are perhaps to be similarly explained.

Now it is true that with this interpretation the dhātup. becomes open to the charge that it has stated only a secondary meaning, and not the primary one, viz. 'bend, bow.' This difficulty could be tided over by resorting to the *tantra* or the *āvṛtti*. — Thus the definition, when fully expanded, would read as *prahvatve, prahvatve śabde (ca)*.

This double entendre of course applies with the definition which actually uses *ca*.

√*maṭh*: *mada-nivāsayoḥ* P J Śā; *nivāse* C Kk Kt; *mada-nivāsayoḥ sthaulye ca* H; *vāsa-madayoḥ* V.

Kt, though ordinarily closely following C in the arrangement of roots, differs from it in retaining the meanings of the P.Dh. Here it (and Kk) seems to have unwittingly followed C in the matter of meaning also.

√*ruc*: *dīptāv abhiprītyāṁ ca* P J Śā H; *dīptau* C Kk Kt; *prīti-prakāśayoḥ* V.

Here also the absence of the meaning *abhiprīti* in Kk Kt. is to be explained in the same way.

The most striking example of the omission of meanings is the case of √*av* where, in the place of nineteen meanings recorded by others, C has (as usual) only one, viz. *rakṣaṇa* and Kk Kt. only *pālana*.[13] One wonders whether this was not meant to be a protest on the part of Kk Kt against the special favour shown to √*av* in assigning the unusually large number of 19 meanings assigned to it by others.[14]

In the group of roots beginning with *t*, there is no case of omission.

5. *Particularization*:

It has been already said in chapter V that only in a small number of cases the dhātupāṭhas state the specific meaning while in the large number of the remaining cases they are content with recording only the general meaning, leaving it to the commentators to work out its specific shades. Below are given some instances of this particularization of meaning in the commentaries and allied works. First I take up some cases of verbs concerning

13. *Rakṣaṇe prasiddho'yam*, remarks Dgd.

14. For the dropping of the meaning *pluti* in connection with √*haṭh*, see below under 'Differences of Opinion.'

(i) particularizations of movement:

√1 *aṁh*: *'vakragatau'* (against *'gatau'* of all others) Kk. Cf. this with √2 *aṁh* 'be narrow or distressing' posited by Whitney.

√*ṛṇ*: *'durgatau'* (against *'gatau'* of all others) Kk.

The particularization is evidently effected under the influence of the noun *ṛṇa* 'debt' and is undoubtedly suggested by √*daridrā* *'durgatau'* (*durgati* = *akiṁcanībhāvaḥ* 'poverty').

√(*ā*)*kram*: *jyotiṣkartṛka udgame* AC.

√*taṅg*: *'gatau* (or, *gatyarthaḥ*)'[15] *'skhalane rūḍhaḥ'* Kṣ; *gate skhalane* V.

√*drā*: *'kutsāyāṁ* (or, *kutsitāyāṁ* etc.) *gatau'*. *palāyane* C; *kutsitā gatiḥ palāyanaṁ, nidrā ca* Kṣ H; *svapne pālāyane* V.

√*dru*: *'gatau'*. *vegitāyāṁ gatau* AC; *'vipūrvaḥ palāyanārthaḥ'* Dgd.

√*dhāv*: *'gati-śuddhyoḥ*. √*dhāv* is also regarded as a substitute for √*sṛ* in the Present system when *vegitā gati* is implied.[16]

√*dhor*: *'gaticāturye.' 'aśvagativiśeṣa ity arthaḥ'* BM; *'dhoritakam aśvānāṁ gativiśeṣaḥ* T.B.

According to the lexicons, however, the word *dhoraṇa* means *'conveyance'* (in general) and *ādhoraṇa* 'elephant-driver' (Amar. 2.8.58).

√*pat*: *'gatau'*. *'gatir iha patanam'* Dgd.

√*pav*: *'gatau'*. *'vātasya gatau'* and *'somasya maruto gatau'* AC (cf. √*vā* below).

√*plih*: *'vakragatau'* (against *'gatau'* of others) Kk.

√*bhram* (I): *'calane'*. *'maṇḍalākāreṇa calanam eva dhātvarthaḥ na tu calanamātram'* TB.

√*mluc*: *'gatau'*. *'astaṁgame nimlocati'* AC.

√*raṁh*: *'gatau'*. *'vegitāyāṁ gatau'* AC.

√*laṅg*: *'gatau'*. *'khañjane ... rūḍhaḥ'*. Kṣ; *khañjane* V.

√*vaṅg*: *'gatau'*. *'gativaikalye rūḍhaḥ'* Kṣ; *khañjane* V.

√*valg*: *'gatau'*. *plutagatau* AC.

15. Such variants, which concern only the wording, and do not affect the meaning are not here always noted.

16. P 7, 3, 78 and Kāś. thereon.

√*vā*: *'gati-gandhanayoḥ'. 'vātasya gatau'* AC; *'gamanam iha vāyu-kartṛkam eva'* Dgd.

√*sru*: *'gatau'. 'yady api sāmānyena gatir uktā tathāpi dravadravya-syaiva gatir iha jñeyā. sravati ghṛtam'*. TB.

√*hi*: *'gatau'. 'gatir iha antarbhūtañyarthatvāt preraṇam'* Dgd.

(ii) Particularizations of Sound:

(a) Out of the roots given with a general meaning *avyakta śabda* (or °*ktā vāc*, etc.) the following have been furnished with specific shades of meanings by the later works:

√*kūj*: *'kūjitaṁ vihagādau rūḍham'* Kṣ.

√*kṣīj*: *'anyas tv āha: ..... kṣījati ... ity ukte sakhedaṁ svanatīti gamyate'* M; *'sakhedasyaivāvyaktaśabde kṣījeḥ prayoga iti Rakṣitaḥ'* Dgd.

√*guñj*: *'guñjiataṁ bhramarādau (rūḍham)'* Kṣ.

√*reṣ*: *'ayaṁ svabhāvād vṛkaviṣayaḥ'* S; *'riṇāti reṣate vārke dhvanau,* AC; *'reṣaṇaṁ vṛkaśabdaḥ'* SK.

√*śiñj*: *'bhūṣādeḥ (śabde) śiṅkte'* AC, *'asphuṭadhvanir iha bhūṣaṇa-kartṛka eva'* Dgd.

√*hikk*: *'hikkate hikkatīty etau hikkāyām'* AC.

√*heṣ*: *'heṣate'śvaḥ'* Kṣ; *svane'śvānām* V; *'ayam aśvavaiṣayaḥ'* S; *aśvānāṁ* AC; *aśvaśabde* SK.

√*hreṣ*: *'hreṣitaṁ haye (rūḍham)'* Kṣ;[17] *svane'śvānām* V; *'heṣati ayam aśvaviṣayaḥ. hreṣ-ṛ iti sarephaś cātra draṣṭayaḥ* .... S; *aśvānāṁ (dhvanau)* AC.

(b) Four roots viz. *kard, kās, pard* and *śṛdh* are read with the mening 'make a foul sound' (*'kutsite śabde'* or *'śabdakutsāyām'*) in the dhātup. They are thus particularised:

√*kard*: *'kutsitaśabda iha kaukṣaḥ'* S;[18] *kaukṣe (śabde)* AC, SK.

√*kās*: *'śabdasya kutsā rogitvāt'* Kṣ; *kaphaje śabde* AC; *'kuśabda iha rogahetuka-kutsitaśabdaḥ'* Dgd.

17. So under P. Dh. I, 471-480. But he reads √*heṣ* only against *avyakte śabde,* while he reads *hreṣ* against *gatau.*

18. Here S quotes Keśavasvāmī thus: *yad āha Keśavasvāmī:*
kaukṣe kardati pardate gudarave reṣeti vārke hase/
bukketi śvarave bhaṣeti hayaje heṣeti hreṣeti ca//

√*pard*: *'pāyudhvanau vartate'yam'* Kṣ; *apānotsarge* V; *'iha kutsitaḥ śabdo gudaravaḥ'* S.

√*śṛdh*: *'śabdakutsā pāyuśabdatvāt'* Kṣ; *parde* V; *apānotthe* (*śabde*) AC.

(c) Of the roots given with a general meaning *śabda*, the following have been thus particularized:

√1 *kaṇ*: *'kaṇitam ārte (rūḍham)'* Kṣ; *ārtasvare* V.

We have seen (Ch. IV) that Yāska had already noted the root *kaṇ* as meaning 'make a low or indistinct sound'. The meaning 'jingle, tinkle' is found in the word *kaṅkaṇa* (for **kaṇkaṇa*) 'bracelet'. It seems to have further developed a specialized meaning 'groan, moan' which is still found in Nep. *kan-nu*, Guj. *kaṇ-vū*, Mar. *kaṇ-ṇē*, *kaṇh-ṇē*, all meaning 'groan, moan'.

ku: This root is read in three classes, viz. I, II and VI (in this last class with v.l. *kū*). According to the concurrent testimony of all the commentators[19] *ku* (I) denotes *avyakta śabda*,[20] *ku* (II) *śabda* in general, and *ku* (*kū*) (VI) *ārta śabda*. This particularization is found for the first time in the Nyāsa (p. 867) which, commenting upon the Kāśikā under P 7.4.63 remarks thus: *saty api hi śabdārthatve bhidyata eva eṣām abhidheyam. tathā hi: kavatis tāvad avyaktaśabde vartate, uṣṭraḥ kokūyata iti. kuvatir apy ārtasvare vartate, cokūyate vṛṣala iti. pīḍita ityarthaḥ. kautis tu śabdamātre.*[21]

√*kvaṇ*: *'kvaṇitaṁ vīṇādau (rūḍham)'* Kṣ.

√*kṣu*: *kṣute* V, AC.

√*garj* } : *'garjitaṁ meghādau (rūḍham)'* Kṣ; *garja kalakaladhva-*
√*gṛj* } *nau* Kk.

√*gṛñj*: *'gṛñjitaṁ siṁhādau (rūḍhaṁ)'* Kṣ.

√*gai*: *'etau* (i.e. √*kai* and √*gai*) *śabdaviśeṣe rūḍhau'* Kṣ; *gāne* V; *gīte* AC, *'iha śabdaḥ śabdaviśeṣaḥ'* S.

√*dhmā*: *'śabdaśabdena tadanukūlavāyur iha gṛhyate, tena śaṅkhaṁ dhamatītivat mṛdaṅgaṁ dhamati iti prayogo nety ahuḥ'* TB.

19. Kṣ and M under P. Dh. II, 33, S under P.Dh. I, 999.

20. Vop. does not give this meaning.

21. This passage is quoted (with slight variations) by the Pk. (P. 31) while commenting on the Daiva, st. 23 which runs thus:

avyaktaśabde kavate, kuvate tv ārtaśabdane kautīti śabdamātre syāt.

S. C. CHAKRAVARTI (Dh. Pr. P. 80, foot-note 12) cites similar stanza without mentioning its source.

√*bṛṁh*: *'bṛṁhitaṁ gaje (rūḍhaṁ)'* Kṣ; *'vṛṁhitaṁ karigarjitam'* S.

√*bhaṇ*: *'sa* (i.e. *śabdaś*) *ceha vyaktavākyam*[22] Dgd.

√*maṇ*: *'maṇitaṁ suratakūjane rūḍham'* Kṣ; *'saurate (śabde) maṇati* AC.

√*raṇ*: *'raṇitaṁ nūpurādau (rūḍham)'* Kṣ.

√*vāś* (v.l. *vās*): *'vāśitaṁ paśuṣu (rūḍham)'* Kṣ; *tiraścāṁ dhvanau* AC; *'śabda iha tiraścām eva'*, Dgd.

√*hve*: *'śabda iti sāmānyenoktāv api ākāraṇarūpaśabda evātra gṛhyata ity āhuḥ'* TB.

(iii) *Particularizations of colour*:

Three roots, viz. *nīl, śoṇ* and *śvit* which are only broadly described as expressive of 'colour' (*varṇa*), are thus particularized:

√*nīl*: *śyāmatve* AC; *'varṇa iha kṛṣṇavarṇībhāvas tatkaraṇaṁ ca'* Dgd.

√*śoṇ*: *rañjimni* AC; *'varṇaś ceha raktavarṇībhāvaḥ'* Dgd.

√*śvit*: *śauklye* V; *śuklatve* AC.

(iv) *Miscellaneous*:

√3 *kaṇ*: *nimīlane'*. *'ekanetranimīlana evāyaṁ śabdasvabhāvāt'* TB.

√*cūṣ*: *'pāne'*. All the dhātupāṭhas merely state this general meaning. Even Kkd. and AC do not state the specific meaning. Dgd. hints at it when he illustrates the use of the verb as *'cūṣaty āmraṁ lokaḥ'*. This meaning, viz. 'suck' is still found in Mar. *cokh-ṇē*, H. *cūs-nā*, Guj. *cus-vū, cos-vū*, S *cuh-ṇū*, etc.

√*bhrajj*: *'pāke'*. *'bharjanarūpaḥ pāko'tra dhātvartho na tv odanādeḥ pākas tatra prayogābhāvād ity āhuḥ'* TB.

√*mih*: *'secane'*. *'secanam iha miśrīkaraṇakaṁ vivakṣitaṁ na tu secanamātram'* TB.

√*mīl*: *'saṁkoce'*. *'netrasaṁkoce tu pracuraprayogaḥ'* TB.

√*muṇḍ*: *'chedane'*. *'cheda iha lomaccheda eva'* Dgd.

√*hu*: *dānādanayoḥ'*. *'dānaṁ ceha prakṣepaḥ. sa ca vaidha ādhāre haviṣaś ca iti svabhāvāl labhyate'* SK.

Even considering these cases of particularizations in the later dhātupāṭhas and commentaries, there is still a very large number of roots (mostly

22. i.e. human speech.

of 'sound' and 'movement') which remains unparticularized. Out of 150 odd roots given with the meaning *sabda* 'sound', and 500 odd given with the meaning *gati* 'movement', only 15 and 20 respectively have been explained as meaning some specific 'sound' or 'movement',—all of these are cited above. This is the case not only with the overwhelmingly large mass of unauthenticated roots (a substantial portion of which comes from Kk.), but also with many authenticated ones.[23] For the ascertaining of the specific meaning of these unexplained roots one is referred to the actual usage of the language. Thus, under P. Dh. I, 471-480, after having stated the different shades of 'sound' with regard to these *śabdārtha* roots, Kṣīrasvāmin rounds off thus: 'How long, indeed, are we to go on explaining thus? The wise should ascertain it from the (practice of) the world. For, the science (of Grammar) has the actual language for its basis' (*'kiyad vyācakṣmahe vayam? lokāt sūribhir atyūhyam. lakṣyamūlaṁ hi lakṣaṇam'* (p. 38). Kṛṣṇalīlāśuka[24] even goes further and emphatically declares that in this matter, as in the case of the variety of meanings which a root might express specific meaning should be ascertained from particular usages, and that one should not regard the pāṭha as sacrosanct and pin oneself down to it (*'sarvatraivam prayogaviśeṣād arthaviśeṣo'py anekārthavad āstheyaḥ, na punaḥ pāṭha eva śaraṇam'*). The passages are so eloquent that they hardly need any comment.

Along with the two significant words *'loka'* 'popular parlance' and *prayoga* 'usage of the language' occurring in the above passages, two other words which we have already met with above must be underlined; they are *rūḍha* 'grown or developed by practice or convention' and *svabhāva* 'nature'. Though given with only broad meanings in the dhātup-, certain roots are explained as denoting only specific shades thereof either by *rūḍhi*[25] or by their very *svabhāva*.[26] The statements are so categorical that there is no doubt left whatever but that the grammarians regarded the actual usage of the language as the final authority in this matter.

In the group of roots beginning with *t* there is only one case of particularization, viz. of √*taṅg*, which is already cited under the heading 'particularization of movement.'

23. Out of 41 roots of unparticularized movement (see Ch. V) the number goes down to 30, when the explanations of the commentators are considered. They are: *aj aṭ aṇṭh iṅg iṣ īṅkh ṛṣ khd ṭīk ḍhauk dram dhanv dhav nakṣ phaṇ bhreṣ raṅg ri riṅkh riṅg rī vañc vī vell, vevī śal śvañc sṛ sṛp hval.* In the case of the verbs of sound, the original number of 21 comes down to 10. They are: *u gu gṛ nard mā rambh ras ru rebh rai.*

24. Puruṣakāra, p. 32.

25. Cf. the remarks above under roots *kvaṇ, bṛṁh, raṇ* etc.

26. Cf. the remarks above under roots *reṣ* and *hu.*

6. *Difference of opinion*:

√2 *kīṭ*: *bandhane* M Kk Kt; *varṇe* (*varaṇe* Kṣ; *varṇane* J H) others.

Wg. (followed by MW.) understands *varṇa* here in the sense of 'tinge, colour.' I think *varṇa* here means *varṇana* (as J H put it) i.e. 'describe, narrate' because *kīṭayati* seems to be a Prakritism for *kīrtáyati* 'mentions, recites, commemorates.' *varaṇe* (with anaptyxis) is a corruption for *varṇe*.

How the meaning *bandhana* came to be assigned to this root in M Kk Kt is uncertain. It might be due to contamination with √*ṭaṅk* (*ṭak-i* Dhp.): *bandhane* which precedes √*kīṭ* and is separated from it by only one root viz. *dhūs* in all these three dhātupāṭhas.

√*kleś*: *vyaktāyāṁ* (*avyaktāyāṁ* S) *vāci*[27] P J Śā H; *bādhane* C Kk Kt (also cited by Kṣ H); *vade upatape* V.

Kṣ originally reads the dhātup. in such a way as to make *kleśa* and *vyaktā vāc* additional meanings of the preceding root, i.e. √*bhikṣ*.[28] Then he adds that *kleśa* is also read as a separate root, with the meaning *bhāṣaṇa* by the Cāndras, and *bādhana* by the Daurgas.

Kṣīrasvāmin's statement that C reads √*kleś* with *bhāṣaṇa* as the meaning is interesting because LIEBICH'S edition[29] reads *bādhane* as said above. Almost everywhere else (roots *gad, jap, jalp, brū* etc.) C substitutes *vacane* in the place of the older *vyaktāyāṁ vāci*, and *bhāṣaṇe*, if genuine, could be regarded as an occasional variant for *vacane*.

But how did the older meaning *vyaktā vāc* itself come to be associated with the root *kleś*? Neither any verbal form nor any derivative is attested as being connected with the meaning 'speak'. On the other hand, the meaning *bādhana* is clearly intended for deriving the noun *kleśa* 'pain' from this root. But where is the necessity of reading another root simply for this purpose when this noun is to be evidently referred to √*kliś* (which is read in the IV and the IX class)?

I think the solution lies in the text as it is originally given by Kṣ, — i.e. the text which makes *kleśa* a meaning (along with the other, viz. *vyaktā vāc*) of √*bhikṣ*. That *kleś*, ending as it does in *-ś*, is quite out of place here will be clear at a glance at the preceding and following roots which end in *-kṣ*. To make it clearer: In this section (I 633-682 § 16. Wg), roots 633-641

27. Cf. *vyaktoktau kleśate* (Daiva 163) and *kleśate na vṛthāvākyam* (Kavir. 93a).
28. *bhikṣa yācñāyām alābhe lābhe ca, kleśe ca vyaktāyāṁ vāci* (Kṣ. p. 50).
29. p. 14. There is also no v. l.

end in the conjunct *-kṣ;* 642-653 in *-ṣ;* 654-662 in *-s;* and the rest (except *kāś* 678 and *ghuṁṣ* 682) in *-h*. If the author had really intended to read a root *kleś* he would not have wedged it in the midst of the roots in *-kṣ*, as we are asked to believe, but would have read it in its proper place, say after the group of roots in *-ṣ*, or after the one in *-s*.

It is not also quite difficult to explain the meanings *kleś* and *vyaktā vāc* when going with √*bhikṣ*. The latter meaning, as in similar cases, can be understood in a particularized sense, viz. to utter the words of begging (something like *'bhavati, bhikṣāṁ dehi'*) which a mendicant has formally to do. As regards the *kleśas*, a mendicant's life is certainly beset with these (not to speak of the nuisance caused to others!).

Lastly, though Vop. reads *kleś* as a separate root, he also alternately assigns these meanings to √*bhikṣ* when he says *bhikṣ-aṅ lābhārthyālābhokti-kliśi*[30] (p. 51, st. 319).

√*jyā*: *vayohānau* P Kk Kt Śā (also cited by H); *hānau* C H J; *jarāyām* V.

The meaning *vayohāni* 'age' is evidently given under the influence of the words *jyāyas* and *jyéṣṭha* which mean, inter alia, 'elder' and 'eldest' respectively.[31] That is, however, just one aspect and a secondary one, of the denotation of this root which primarily means 'overpower; deprive' etc. The later definition *hāni* brings out the latter meaning (i.e. 'deprive') and may be said to constitute an advance over the older definition in giving a more basic meaning.

√*piñj* (II; C Kk Kt om.): *varṇe* MS; *saṁparcane* J Śā H (also cited by S); *avyakte śabde* cited by Kṣ H S; *varṇa-pūjayoḥ saṁparke* (*ca*) V. The whole position is put succinctly by SK thus; *pij-i varṇe. saṁparcana ity eke. ubhayatra ity anye, avayava ity apare. avyakta- śabde itītare.*

The variety of meanings, so independent of each other, is indeed bewildering, and it would be interesting to find out how so many meanings came to be associated with this root.

The first thing that strikes us is the comparatively late origin of this root. It does not occur in Kṣīrasvāmin's version of the P.Dh. Kṣ runs here

30. Here *ukti=vyaktā vāc*, and *kliś=bādhana*.

31. Cf. MWD, p. 426; also P 5, 3, 52 which teaches the substitution of *jya* in the place of *vṛddha* in the comparative and superlative degrees with *īyas* and *iṣṭha* respectively.

thus: *śij-i avyakte śabde ..... śiji pijīti Kauśikaḥ.*'[32] The root is also not read by other older dhātupāṭhas, viz. C Kk Kt (and also Śa). It makes its first appearance in J.

It is true that the root appears in Maitreya's version of the P.Dh. but in view of its absence in Kṣ and in the other older dhātupāṭhas the root seems to have crept there from outside, — already before M.

It would also further appear that this root was not there in the P.Dh which was before Bhīmasena with the result that it was not furnished with a meaning by him. However, it seems to have infiltrated into a section of the Mss. of the P.Dh. at some time so that when it was discovered afterwards, it was found to be without any meaning ascribed to it. This might have led to the assigning of a meaning according as one thought it fit. Some (like Kauśika) bracketed it with the preceding root i.e. *śiñj: avyakte śabde,* thus assigning the meaning *avyakta śabda* to it; others (like J, and following him Śā and H) linked it with the following roots *pṛñj, pṛc: saṁparcane,* thus furnishing it with the meaning *saṁparcana;* some others, who were evidently not satisfied with this apparently arbitrary process, thought better of it, and with their eyes on words like *piṅga, piṅgala, piṅgalaka, piñjara* all meaning 'yellow, tawny, reddish brown', and *piṅgiman* 'tawny or yellow colour' assigned the meaning *varṇa* 'tinge, colour' to it; still some others (like kāśyapa), thinking of the words like *piñjala* and *piñjula* 'bunch of stalks or grass' gave the meaning *avayava* 'bind, bunch' to it; lastly Vopadeva's meaning *pūjā* 'worship' in *varṇa-pūjayoḥ* seems to be due to a very early corruption of *varṇa-kūjayoḥ,* where the word *kūja* stands for *avyakta śabda.*[33]

√*mṛḍ* (IX): *kṣode* M S; *sukhane* Kṣ C H Kt H[34] (cited by S); *sukhasahane* Śā; (*kṣode*) *sukhe ca iti kecit* S; *mode* V.

Here *sukhane, sukhe, sukhasahane* and *mode* are all meant to convey one and the same idea, viz. 'be gracious or favourable; be or make happy'. That this is its real meaning, and not *kṣoda* 'pound, pulverize' is clear from the fact that the root is attested only in the meaning *sukhane* and that this is the only meaning which is assigned to it unanimously in the VI class.

The assigning of the meaning *kṣoda* in M (and following him in S and SK) seems to be due to inadvertence. The preceding root is *mṛd* : *kṣode* with which *mṛḍ* seems to have been confused here so that instead of reading

32. p. 105.

33. The reading *varṇa-kūjayoḥ* given by a couple of my Mss. had to be abandoned as being not supported by the older and usually more reliable Mss.

34. The Nyāsa (under P 1.2.7) also reads *sukhane.*

mṛda : kṣode. mṛḍa : sukhane, M reads *mṛda : kṣode. mṛḍa ca.* There was probably an intermediate stage (originally due to confusion) *mṛda : kṣode. mṛḍa : kṣode* which, for the sake of economy and clarity was changed to *mṛda : kṣode. mṛḍa ca.*

The word *mṛṇmaya* (a side-form of, and regarded by some as wrong writing for, *mṛnmaya*) 'earthen' might have been a contributory cause for this confusion.

√*yabh* : *viparītam* (°*te m- M*) *aithune* P; *maithune* others.

viparīte maithune is explained by M as *viparītārthapūrvake.* There is a variant of this, viz. *viparītānuṣṭhāne,* which is cited by Sāyana. Even the explanation, however, does not make it clear what exactly is meant.

Puruṣakāra, (p. 98) reads *bhaya viparīto maithune* and remarks: *viparīta it: yabha ity arthaḥ,*[35] thus making the position ultimately the same as in other dhātupāṭhas. The device, though ingenious, is hardly warranted, since had the author really wanted to say *yabha maithune,* he would have said it in so many words, instead of indulging in such acrobatic feats.

It is possible that *viparītamaithuna* is the same as what is later known as *viparītarata* or *puruṣāyita.*[36] But it is worth considering whether it could not have been used in the sense of an 'unnatural cohabitation', viz. the one with beasts. This suspicion is raised by the circumstance that this verb *yabhati* occurs chiefly, and also repeatedly, in the *aślīlabhāṣaṇa* section of the Taittirīya Saṁhitā, the mock union of the queen and the dead horse on the occasion of the Aśvamedha sacrifice described in it being regarded by some as a relic of the prehistoric practice of cohabiting with other than human species.[37]

The later dhātupāṭhas drop this particular aspect and merely state the general meaning.

√*vakṣ*: *saṁghāte* Kṣ (cited by H S also); *roṣa-saṁhatyoḥ* V; *roṣe* others.

Whereas others read *vakṣ*: *roṣe. makṣ* (v. l. *mrakṣ*) : *saṁghāte,* Kṣ reads *makṣ*: *roṣe. vakṣ*: *saṁghāte,* thus transposing probably inadvertently the two

35. Mādh. Dh. (p. 191) is corrupt when it quotes Puruṣak. thus: *Puruṣakāre yabha viparītamaithune iti viparītamaithune iti viparītayabhana ityarthaḥ.*

36. This is defined as:
upariṣṭhā yadā nārī ramate kāmukaṁ naram
viparītaṁ rataṁ jñeyam

37. R. D. KARMARKAR, *Aśvamedha: Its original signification ABORI,* Vol. XXX, pp. 332-345.

roots. There is, thus, no real case of difference of opinion. Vopadeva, as usual, gives both the meanings.

√2 *vaj*: *vaja mārgasaṁskāra-gatyoḥ. mārgasaṁskāre gatau ca. mārgagatau saṁskāragatau cety eke. dvau dhātū ity anye. vājayati. vrajeti Candraḥ ..... mārgayati ..... vaja mārgaṇa-saṁskāra iti Durgaḥ* Kṣ.

vraja mārga-saṁskārayoḥ, gatau ca M.

vraja mārgasaṁskāra-gatyoḥ. vraji (?) *mārgasaṁskārayor gatau ceti Maitreyādayaḥ. atra Dhanapālo mārga ceti paṭhati. Svāmī tu vrajasthāne vajiṁ paṭhitvā mārgeti dvitīyaṁ dhātum āha. tantrāntare tu vaji-vrajī dvau paṭhitvā mārgasaṁskāra-gatī arthāv uktau* S.

vaja vraja mārgaṇa-saṁskārayoḥ J.

vaja mārgaṇasaṁskāre Kk Kt Śā.

vaja vraja mārgaṇa-saṁskāra-gatyoḥ. mārgaṇo bāṇas, tasya saṁskāre gatau ca. mārgasaṁskāre'pīty anye. H.

gatau saṁskṛtau ca V.

It will be seen that some read only √*vaj*,, some √*vraj*, and some both (and some even √*mārg*!). Originally only √*vaj* seems to have been read, since, it is common to almost all the *dhātupāṭhas*.[38] √*vraj* seems to have been smuggled in later on account of its association with √*vaj* in cl. I. Thus it may be taken that originally √*vaj* alone appeared here.

Let us now fix the meaning. *Gati*, which is absent in many dhātu-pāṭhas, may be taken to be a later addition, influenced by that meaning which is assigned to it in cl. I.[39] So that we have now only *mārgasaṁskāra* and the *mārgaṇasaṁskāra* to deal with. Out of these, the splitting of the former into *mārga* and *saṁskāra*, and treating *mārga* as a root with *saṁskāra* as its meaning is as unnecessary[40] as it is unwarranted.[41] Taking the whole expression *mārgasaṁskāra* as a definition it is further capable of being interpreted (as M does) as a dvandva compound, thus yielding two different meanings, (1) *mārga* 'seek, hunt; beg' and (2) *saṁskāra* 'prepare,

38. Its omission in M seems to be accidental. (It is, however, read by some Mss.) Its omission in C is not significant since C, as a rule, omits in the cl. X such roots as have already appeared in the preceding classes.

39. This is also betrayed by the manner in which *gatau* is tagged on to *mārga-saṁskārayoḥ* in M and is subsequently absorbed by S.

40. We have already one *mārga* in the same class and the same sense.

41. Because it is neither supported by other *dhātupāṭhas* nor by the recorded literature.

refine'; or, it can be looked upon as a tatpuruṣa compound, i.e. constituting only one meaning 'clean the street.'[42] The variant *mārgaṇasaṁskāra* is explained only by H, taking it rightly, as a tatpuruṣa compound and meaning 'perfect or trim an arrow (*mārgaṇa*).' Between *mārgasaṁskāra* and *mārgaṇasaṁskāra* I prefer *mārgaṇasaṁskāra*, with the explanation given by Hemacandra, firstly because it is better supported by the dhātupāṭhas and, secondly, because it also conforms to the actual usage of the language. The perfecting of an arrow here consists of fitting it with the feathers of vulture (*gṛdhra*[43]) or heron (*kaṅka*). This is clear from the fact that arrows are often described as *gṛdhravāja*, or *gṛdhravājita* 'furnished with a vulture's feathers.'

We will now take only one more example.

√*haṭh*: *pluti-śaṅkubandhanayoḥ* P (Kṣ M[44]); *balātkāre* C Kk Kt H (also cited by Kṣ S); *pluti-śaṅkutvayoḥ* Śā; *plu (stu- J) tiśaṭhatvayḥ*[45] J S; *kīlabandhe balātkṛtau plutau* V.

Here *stuti-* (for *pluti-*) in J may be first dismissed off as being a scribal error or misprint, since it has no support whatever. *śaṅkutva* of Śā is apparently the same as *śaṅkubandhana* in P, which latter is found in both Kṣ and M, and so must be the genuine reading. In the place of *śaṅkubandhana* J reads *śaṭhatva* (which might have been either originally a scribal error for *śaṅkutva*, or deliberately changed into it, *śaṅkutva* being found unintelligible) and curiously enough S follows him while, on the other hand, Śā here follows P (as in Kṣ M) and not J. Further, C and his usual followers Kk Kt, and here also H, drop the two meanings *pluti* and *śaṅkubandhana* and read, in their place *balātkāra*. That *pluti*, one of the older meanings, is here dropped is evident. The question now is whether *balātkāra* is meant to be an altogether different meaning,[46] thus implying an outright rejection of *śaṅkubandhana*, or whether it is meant to be just a more eloquent and more easily understood expression to convey the same idea as implied by the old expression *śaṅkubandhana*. What this *śaṅkubandhana* means is nowhere made clear. Kṣ paraphrases it by *kīlabandhana* — which is reproduced by V also — which hardly makes it any clearer. Apparently it means 'tying something (as an animal) to a post.'[47] This meaning, if it

42. 'prepare the way' MWD p. 913.
43. Cf. Dgd.: *mārgaṇasya śarasya pakṣādinā saṁskāro mārgaṇasaṁskāraḥ.*
44. Kṣ's comm. to Amara. (2,110) however reads °*śaṭhatvayoḥ.*
45. See the footnote 44 above.
46. Which is evidently the view of V and Āc who give both *balātkāra* and *saṅkubandhana* side by side (V as *kīlabandha*, Āc as *śaṅkvandana*).
47. Cf. Dgd.'s illustration: *haṭhati chāgaṁ lokaḥ.*

ever existed, has left no trace whatever. There being no verbal forms attested in the literature, it is to be presumed hat the root is posited to explain the noun *haṭha*, primarily meaning 'force' or 'violence' (which is the same as *balātkāra* of the later dhātupāṭhas). Now it is possible that the expression *śaṅkubandhana*, when it was used as a definition of √*haṭh*, had already acquired a secondary meaning, viz. 'to hold something by force; to use force, to compel (somebody to do something)' which is ultimately the same thing as, and might have been therefore replaced by, *balātkāra*.

I may be here allowed to make another suggestion. The word *haṭha* also occurs in connection with a particular kind of yoga, called Haṭha-Yoga. The Haṭha-Yoga, as is well known, is concerned, in one of its aspects, with the discipline of body by means of the various *āsanas*, *bandhas* etc. The *uḍḍiyāna-bandha* and the *jālaṁdhara-bandha* are well known enough. There is nowhere, in the extant yoga literature, any mention of such a *bandha* as *śaṅkubandha*, but in view of the fact that the oldest dhātupāṭha assigns the meaning *śaṅkubandhana* to the root *haṭh*, — which is apparently read only to explain the noun *haṭha* — and that *haṭha-(-yoga)* is connected, inter alia, with the *bandhas*, it would be worth pursuing the subject to ascertain whether there was any ancient tradition about a *śaṅkubandha*.[48]

It must have been clear from the foregoing discussion that the cases of difference of opinion in the strict sense of the term are very few. Most of the cases are due either to scribal errors or to sheer misunderstanding or confusion — roots confounded with their neighbours (as in the case of the roots 2 *kīṭ*, *piñ*, *vakṣ*), meanings mistaken for roots (alleged roots like *kleś*, *mārg*), obscure expressions (*viparītamaithuna; śaṅkubandhana; mārgaṇa-saṁskārā*) creating confusion etc. What is quite remarkable is that there is not a single case of an older meaning categorically branded as wrong or incorrect. New meanings have been suggested 'without prejudice', so to say, to the older ones; and, except in rare cases (like *pluti* of √*haṭh*) an older meaning is hardly dropped outright. The attitude, all along, seems to be to preserve and to stick to tradition, and to resort to modifications only where absolutely necessary.

In the group of roots beginning with *t* there are only 8 roots about whose meanings there is difference of opinion. They are: 2 *tan*, 2 *tap*, *tantr*, 2 *tik*, 1 *tuñj* (VI), *tūṇ* and *tṛp* (X).

48. In his letter dated 16-4-55, Swāmī KUVALAYANANDA writes to me to say: "There is no *bandha* either as *śaṅkubandha* or *kīlabandha* occurring in Yogic literature so far as it has been studied in the Āśrama (Kaivalyadhāma)'.

These, then, are the main tendencies behind the variations in the definitions. These affect, as said above, only a small section of the definitions, the major part remaining untouched. Nevertheless, these tendencies are quite markedly conspicuous. The text of meanings, as constituted by Bhīmasena, received its first innovation at the hands of Candra who unifomly reduced every defiinttion to a single meaning. This innovation, however, was not met with approval by any of his successors (including Kk and Kt) all of whom reverted to the older set of meanings, although it was arbitrary in that respect. Besides, Candra also substituted some definitions, which had a quality of brevity and perspicuity about them, in place of older ones that were obscure or cumbrous.[49] There is, however, no attempt at particularizaion, and in the process of simplification he has sometimes gone too far to the extent of substituting mere repetitious definitions in the place of older ones which were independent and significant.

After the Cāndra came the Jainendra school. It reverted to the fuller set of definitions though it accepted some of the modifications made by C, but stuck to older definitions in many other cases. It also contributed quite a few simplifications, besides which it also introduced some minor changes which, however, reflect only a personal fondness for certain forms. There is no attempt at particularization, and, excepting a couple of isolated cases, there are no instances of additions to meanings. In fact no appreciable cases of addition and almost none of particularization appear until the commentary of Kṣīrasvāmin. Śākaṭāyana followed J and accepted a good number of J's simplifications and other modifications, though he sometimes rejects some of these and reverts to older definitions of the P. Dh. On the whole, however, his leanings towards J are strongly pronounced. Lastly he has also modified some definitions, though these are not always very remarkable.

Where J Śā represent one line of development characterized by a slightly reformist tendency and are prone to introduce modifications here and there (although in a limited measure) Kk Kt represent the other, marked with a strong conservativeness. As was to be expected, they share some modifications with C — and crucial modifications — but, on the whole, they prefer to stick to the older definitions of the P. Dh. Thus they do not accept the "one root, one meaning" procedure of C and differ from him in many other individual cases also. On the whole the conservative tendency of these two dhāṭupāṭhas is quite pronounced. This conservativeness is clearly marked in these cases where Kk Kt invariably follow P C where J

49. Particular instances supporting this and the following statements have been already cited abundantly and need not be repeated here.

goes against the concurrent view of the two. They have also on their part introduced a few modifications but they are not very remarkable. Lastly, there are some points peculiar to Kk which are not shared by Kt.

With Kṣīrasvāmin, the oldest commentator of the P. Dh., a new period begins. He has explained almost every definition, and most of these explanations have been borrowed, verbatim, by H and V. He is also the first to specify the particular shades of meanings. No other work has so much influenced later dhātupāṭhas as the Kṣīrataraṅgiṇī. The version of the P. Dh. which he used is somewhat influenced by the dhātupāṭhas belonging to the J Śā schools, particularly the latter, in the same way as Maitreya's version is influenced by the dhātup. of Durga. As compared to Kṣ, M is very meagre and only rarely adds to or explains the meanings of the dhātup. Sāyaṇa and Bhaṭṭoji usually follow Maitreya's version but they often cite Kṣīrataraṅgiṇī. Hemacandra, while generally following Śā. has coined some new definitions while, as said above, he has drawn heavily on Kṣ. in the matter of explanations. Lastly, Kavikalpadruma is a sort of compilation drawing on all the older dhātupāṭhas, chiefly those of Kṣ. and H, but also making its own contributions which are not inconsiderable.

CHAPTER VII

ROOTS: THEIR CONCEPTION AND THE FORM OF STATEMENT

VII

ROOTS: THEIR CONCEPTION AND THE FORM OF STATEMENT

All the dhātupāṭhas almost always agree in certain features regarding (1) the concept of the root and (2) the form of its statement. Along with the more or less primary roots, all of them give certain roots which are evidently denominative, intensive, or in some other way derivative stems. Similarly, though roots read here are generally monosyllabic, all of them give some roots which contain two, sometimes three, and in a rare case even four syllables (viz. *avadhīra*), including a class of roots regarded as ending in *a* (*adanta*). In the matter of the statement of roots also agreement regarding basic features is striking. Thus in the case of roots capable of showing the guṇa-gradation, all of them give such roots in the low grade (ī ŭ ṛ ḷ); they give certain roots in diphthongs; and also in the case of roots undergoing saṁprasāraṇa, the fuller form is chosen to represent the root.

We have already seen in the first chapter that the abstraction of the root had already taken place long before Pāṇini who is the author of the oldest extant dhātup. We do not know much about the concept of the root in the formative stage of the Sanskrit grammar beyond one or two things: that at one time root was identified with the Present-stem, and that √*as* was stated as *s* by some. But whatever may be the conditions in the pre-Pāṇinian days, the principles and policies in stating the form of roots followed in the P.Dh. have remained almost invariably the same in all the later schools. A root may appear in the different systems in the varied garbs of the Anubandhas; but divested of these latter which are a mere external, it presents everywhere the same inner self.

It would be legitimate to presume that for drawing the lists of roots, concrete cognate forms as appearing in the language actually spoken and in the then existing literature were first assembled together and roots were abstracted from them. To-day we have the ready-made lists of roots from which we are accustomed to 'derive' mechanically various inflectional and derivative forms. In the formative stage of the Sanskrit grammar the process must have been exactly the opposite one. The various actual forms first existed, the common elements of which were subsequently abstracted to explain their formations. Thus an observation of the forms like *válgati vavalga valgana valgú* etc. easily showed that the sound-unit *valg* was common to the various concrete forms and that it contained the general idea

or the meaning common to these forms. Similarly a study of forms like *ī́kṣate īkṣāṁcakre īkṣiṣyáte īkṣā īkṣaṇa* etc. yielded *īkṣ*, and forms like *ā́ste āsāṁcakre āsiṣṭa āsana āsti* etc. *ās* as the kernel or the dhātu of these forms. We shall later on see that the material collected for the analysis came, in the first instance, from the living language of the day. Note was very often taken of the 'irregular' and obsolete forms of the Veda; but they were rather treated as exceptions. The roots were posited and the grammatical laws were deduced mostly on the basis of the facts of the current language.

But the above quoted instances of concrete forms yielding roots easily are not common. They are rather an exception than a rule in the formations of the words of the Sanskrit language. Let us take, for example, another set of forms : *sṛjáti sasarja sasarktha asṛgran asrākṣīt asrāṭ srās* (?) *srakṣyati sṛṣṭá srasṭum sárga sisṛkṣati sráj* and *sragvin*. One is indeed bewildered at the variety of forms assumed by the basic element, no two of which are exactly alike. Evolving some sort of an order the forms can be classified thus : (showing *ṛ*) *sisṛkṣati asṛgran sṛjáti sṛṣṭá;* (showing *ar*) *sasarktha sárga sasarja;* (showing *ra*) *srakṣyati sragvin sráj srasṭum;* (showing *rā*) *asrākṣīt asrāṭ srās.*[1] Also the final consonant is seen to appear in five forms, *k g j ṭ* and *ṣ*. When we find all these forms referred to one base viz. *sṛj* and the various rules given to arrive at these multifarious forms from this base we have to conclude that various grammatical achievements like abstracting the augments, union-vowels and stem-building elements, ascertaining the various vowel gradations and other strengthening and weakening processes of the language, and also deducing the rules of saṁdhi had already taken place in the continuing process of descriptive analysis. And so the process went on, until most of the known forms were analysed and, wherever possible, reduced to roots. The lists of these roots might have undergone revisions, until they received their final form as we see it, e.g. in the P.Dh.

Even a cursory glance at the dhātupāṭhas is enough to show that not all the roots listed therein are primary roots. They contain, e.g. reduplicatives like *dīdhī vevī jāgṛ* etc.; desideratives like *bhikṣ, mokṣ śikṣ* etc., denominatives like *mantr, saṁgrāma, garva, varṇ* etc.; roots openly given along with preverbs like *anu-rudh ā-śaṁs ā-śās,* and those wherein the presence of preverbs may be suspected like *ujjh* (*ud* + *j*(*a*)*h*), *preṣ* (*pra* + *iṣ*), *vyac* (*vi* + *a*(*ñ*)*c*) etc.; and Present-stems like *ūrṇu, hary.*[2] But in these

1. So Wh. BR refer this form to √*sraṁs* 'fall'.

2. So Wh. who regards *har* 'be gratified' as the root and *hárya-* as the Present-stem (fourth class). No forms outside the Present system are recorded, with the exception of a single derivative *haryatá* 'agreeable'. It seems therefore preferable to regard *hary* as the root with the ancient grammarians (as Grassmann does).

cases, at least in some of them, the grammarians were not ignorant of the real nature of these roots. Some roots like *dīdhī jāgṛ* (P.Dh. II, 62-68) have been expressly styled as *abhyasta* 'reduplicated' by the grammarians (P. 6, 1, 6). The desiderative character of *śikṣ* and *mokṣ* was noted by Pāṇini (7, 4, 54. 57-58). As regards the denominatives, this character of the certain so-called roots was also not unrecognized.[3]

It might be asked, then, why these and similar roots were included in the dhātup. in spite of the awareness of their secondary character. The answer is simple. The aim of the ancient Hindu grammarians, particularly the sūtrakāras, was a practical one. Their task was only to analyse the language as they had known it; to reduce the words to that basic element which seemed to express the general meaning, and which recurred in every concrete form. As long as this basic element possessed an individuality all its own—characterized, on the one hand by a particular phonetic form, and by a semantic peculiarity on the other — and as long as this basic element displayed a certain productivity in the inflectional and derivative forms, that was sufficient for being styled as dhātu, no matter what its ultimate origin was. Thus, from the historical point of view *ūrṇu* might be only a Present-stem of √*vṛ*;[4] but when along with *ūrṇoti* it forms its Present as *ūrṇauti* (like *nauti staúti* etc. from roots in *u* of the *ad-* class — a feature not shared by the roots of the *nu-* class), and, what is more, a ppl. *ūrṇuta*[5] and a gerund *ūrṇutya*, then we see that it has practically won the value of a root. Similarly *jāgṛ* might be originally intensive of √*gṛ*; but when it shows, besides the Pres. *jāgarti* (*jāgṛyāt, jāgṛhí*) a Perf. *jajāgāra* and *jāgarāmāsa*, Fut. *jāgariṣyati*, ppl. *jāgarita*, and a number of derivatives like *jāgara, jāgaraṇá, jāgarūka jāgṛvi* etc., then it has to be admitted that it has assumed the full-fledged status of a root from the descriptive point of view. √*mokṣ* not only shows a variety of forms, but has also developed a different meaning: from 'desire to free oneself' it has also come to mean simply 'release, shake off' etc., i.e. it has in the latter cases cast off its desiderative meaning. What is more, the further reduplication in *jajāgāra* and the addition of another desiderative *-s* (along with the consequent reduplication) in *mumokṣayiṣu* (beside *mumocayiṣu*) underline the fact that *jāgṛ* and *mokṣ* were no longer actually felt as reduplicative and desiderative respectively. For all practical purposes they had won the value of an independent root.

3. Cf. the gaṇa-sūtra '*prātipadikād dhātvarthe bahulam iṣṭhavac ca*' (P. Dh. X, 308) and the roots that follow.

4. So Wh. *Roots*, p. 162 and Macd. *Ved. Gram.*, p. 346. Wackernagel, *Altind. Gram.* I, p. 25 from √*ṛ* 'go'.

5. In *prorṇutau* Nom. dual, Daśakum° 57.17; not recorded by Wh. in his Roots.

Here may also be mentioned another type of secondary roots, viz. the cases of transfer from one Present-class to another with retention of the older class-sign. The majority of such cases comes from roots in *-nv* read in the *bhū-* class which are transfers from the *-nu-* class, like *inv jinv dhinv pinv hinv* and a few other unattested roots. Of these, the roots *i, ji* and *pi* are not read by the grammarians in the *nu-* class, evidently because the forms showing the distinctive present-stems *inu, jinu* and *pinu* occur only in the earlier language, and consequently were looked upon as obsolete; the stems *inva, jinva,* and *pinva,* on the other hand, continue to occur, although sporadically, in the later language also, and hence their reading in the *bhū-* class. That √*dhinv* forms its Present-stem as *dhinu* (i.e. really = √*dhi* + *nu*) but outside the Present-system shows the form *dhinv* was noted by grammarians.[6] As the Present-stem *hinu* appears in all the periods of the language, √*hi* is read in the su- class. No forms from *kṛṇv* (whose Pres. stem was recognized as *kṛṇu*), are attested. Roots like *pṛṇ, mṛṇ, druṇ* (dh.) consist of transfers from the *nā-* class (*pṛṇā* fr. √*pṝ, mṛṇā* fr.√ *mṛ* and *druṇā* fr.√ *drū*).[7]

Yet another indication of the practical outlook of the grammarians is the reading, mostly in the ātmanepada, of certain roots, with a decided passive or reflexive meaning, in the *ya-* (*div-*) class or in the *á-* (*tud-*) class (in the latter case also the Present-stem, after the combination of the root and the Present-sign, showing *yá*: *driyá-; dhriyá-* etc.). These roots also appear in other classes with identical or in some way connected meaning. Thus *dūyate* 'is afflicted' beside *dunóti* 'inflicts pain', *prīyate* 'is pleased' beside *prīṇāti* 'pleases', *jāyate* 'is born' beside *jajanti* (gr.), *jánati* 'begets', *khidyate* 'is depressed' beside *khindati* (gr.), khidáti 'presses down' etc. These are, except *jāyate,* clear cases of passive formation as is shown both by their form and meaning. There are some others, however, which, though originally of the passive origin as shown in many cases by the accent, have developed individual personalities through a specialized meaning, and sometimes, in addition, by an invariable association with a particular preverb. Thus *mriyáte* 'dies' (*mṛṇati* 'crushes'; *marati—te* are only Vedic), *ā-driyáte* 'heeds, respects' (*dṛṇīyāt* fr. √*dṛ* 'pierce'), *ā-priyate* and *vyāpriyate* 'is busy' (*piparti* 'fills' or 'passes'), *dhriyáte* 'sustains oneself' (the only other Present-stem being the rare *dhara 'hold'* in the transitive sense), *vidyáte* 'exists' and *vidyamāna* 'living, existing' (*vindáti* 'finds' and *vetti* 'knows').

6. Cf. *dhinvi-kṛṇvyor a ca* P. 3, 1, 80.

7. Roots *kuṇ* (*'śabdopakaraṇayoḥ'*) and *puṇ* (*'karmaṇi śubhe'*) seem to have arisen by *Prākṛtisation* from √*kṛ* (*kṛṇóti*) and *pū* (*punáti*) respectively.—For √*hary* see above.

This practical outlook of the grammarians explains why the nomenclature dhātu is extended to the avowedly derivative or secondary stems, viz. the Intensive, the Desiderative, the Causative, and the Denominative.[8] Along with the *bhūvādayo dhātavaḥ* (the primary roots, P. 1, 3, 1) grammarians also recognize *sanādyantā dhātavaḥ*[9] the secondary roots P 3, 1, 32. On the formal plane, the essence of a dhātu consists in its ability to take the inflectional (stem-building and personal) endings and suffixes of derivation: *dhātutvāl laḍādayaḥ*, as the Kaumudī (under P. 3, 1, 32) puts it. And this ability is common, though in a varying degree, to primary roots and secondary stems alike. When the causative stem *kāraya* e.g. shows a variety of forms like *kārayati, kārayāmāsa* and *°cakāra, kārayiṣyati, kārayitum, kārayamāṇa, kārita, kārayitṛ, kārayitavya* etc. (with further derivatives like pass. *kāryate* and desid. *cikārayiṣu*); or when a Desiderative from the same root, i.e. *cikīrṣa* shows besides the Present *cikīrṣati*, also an Aor. *acikīrṣīḥ, acikīrṣīt*,[10] the Pres. participle *cikīrṣat* and *cikīrṣatī* (as if from *cikīrṣ*) a ppl. *cikīrṣita*, deriv. *cikīrṣā* and *cikīrṣu*, with a caus. *cikīrṣayati* (and a participle *cikīrṣayat*), then we have got to accept that for all practical purposes *kāraya* and *cikīrṣa* are as good dhātus as *kṛ* itself. The difference between these avowedly derivative stems like *kāraya* and *cikīrṣa* on the one hand and the secondary roots of the type of *jāgṛ* and *mokṣ* on the other is this: whereas *kāraya, cikīrṣa* etc. are, both by their form and meaning, felt to be derivative, *jāgṛ, mokṣ* etc. are not: *jāgṛ* is lacking in the intensive meaning, and it has also no simplex with which to connect it; while *mokṣ*, besides having shaken off its desiderative meaning, also lacks a reduplication necessary for the Desiderative. Hence their reading in the list of primary roots. That even the so-called primary roots are only relatively primary is a different thing. Indeed, strictly speaking, we could talk of the ultimate or primary 'roots' of the parent tongue only, and not of those of any of the later languages, like Sanskrit. Descriptively, however, we have got to accept whatever elements wear the aspect of roots in a particular stage of the language.

By the term dhātu, then, the grammarians understood that sound-unit which, characterized by a certain meaning (action), was found to be a kernel of a group of related words. They rightly did not think it necessary, from their descriptive point of view, that this dhātu, the kernel, should be further irreducible or unanalysable. To take once more a concrete example: It was

8. The Passive is excluded.
9. These are enumerated in the following couplet:
san-kyac-kāmyac-kyaṅ-kyaṣo 'thācārakvip ṇij-yaṅau tathā/
yagāya īyaṅ ṇiṅ ceti dvādaśāmī sanādayaḥ.
10. Occurring in the Buddhacarita II, 44, not recorded by Wh.

sufficient for the grammarians to reduce the forms like *cétati cetáyati cittá cétana* etc. to √*cit;* and forms like *cintayati cintayāmāsa cintā cintana* etc. to √*cint*. They were not called upon to explain the relation, if any existed, between √*cit* and √*cint;* much less the one between the roots *cit-cint* on the one hand and √*ci* (seen in, e.g. *cikéṣi ácet ceṣyati cayana* etc.) on the other. They may or may not have noticed the connection between roots like *sṛ jṛ* (*jal*) *dī* and *sṛp jalp dīp* respectively; between *gu gṛ yu* and *guj garj yuj* resp.; between *dyu cyu nṛ* and *dyut cyut nṛt* resp. Similarly we do not know whether they had perceived that a number of apparently separate roots like *sphur sphul sphar sphal phar phal phur phul phull sphuṭ sphaṭ paṭ pal* could be traced to a root *sphṛ-*. One can understand that √*pīḍ* might not have struck them as coming from *api* + √*sad;* or √*īḍ* from √*yaj*. But one cannot definitely assert that the type of relationship existing between *ci* : *cit, gṛ* : *garj, sṛ* : *sṛp, cit* : *cint* had escaped their keenly analytic intellect. Any way, it was outside the scope of their descriptive and synchronistic grammar to go into the genesis of the roots.

Here one point regarding the roots deserves to be mentioned. Since the roots had been abstracted from the concrete words, they were not regarded as having a separate existence apart from the concrete words, except in the lists of the grammarians. They were only abstractions or theoretical creations set up to explain the formation of the language. Pāṇini's purpose being a practical one, he had no occasion to theorise on such matters. But there is enough evidence to give an idea of his view in the matter. Primary nouns in Sanskrit are, as a rule, formed with suffixes. There are, however, cases of action-nouns and agent-nouns where apparently the bare root functions as a noun : thus *diś* 'direction', *pad* 'foot', *dyut* 'splendour', *yuj* 'companion', *spaś* 'spy', *bhid* 'destroyer', *su-dṛś* 'well-looking', *prā-vṛṣ* 'rain', *abhi-khyā* 'splendour', *soma-pā* 'soma-drinker', *grāma-ṇī* 'leader of the village', *Vṛtra-han* 'the slayer of the Vṛtra' etc. The grammarians do not regard them as root-nouns, i.e. roots working as nouns without any suffix, but as nouns formed with a zero suffix (*kvip, kvin* etc.) which is afterwards dropped. Stated in plain language it means that according to the Hindu grammarians no root can appear in the actual language before it has taken on a suffix, real or imaginary. It has to be admitted that whatever might be the condition obtaining in the prehistoric times, Sanskrit grammarians were right, as far as the known stage of the language is concerned, in holding that roots by themselves do not exist independently in the language.

The Selection of the Form

Having seen what the grammarians' concept of the root was, let us now proceed to see how they stated it, i.e., which particular form, out of

a number of forms which the common element assumed in the concrete words, they selected as the most representative one. It is true that, descriptively speaking, which form one prefers for stating the root with is a matter of relatively less importance, and is more a matter of practical considerations. It matters little, from the practical point of view, whether one regards *gai* as the root and derive *gāyati,* etc., from it by adding to it an *a,* the vikaraṇa of the *bhū-* class, or whether one regards *gā* as the root and derive *gāyati,* etc., with the vikaraṇa *ya* of the 4th or the div-class. Nevertheless the general policy in choosing a particular form, unless it is wholly governed by purely technical considerations, shows the way one looks at a language; it shows which form one thinks is the original one and which the derived one.

It has been maintained throughout this chapter that in the positing of roots the grammarians must have gone from the concrete words to the roots. It is, therefore, in the fitness of things that the selected form of the root should be actually found in a fair number of concrete words. If, therefore, it is seen that a particular element of the root does not occur in any concrete form, it will be necessary to explain why the grammarians should have possibly deviated from their policy. It is not possible in every case of this type to decide whether the particular procedure adopted by the grammarians is dictated by technical considerations, like that of the economy or brevity (*lāghava*) or whether it is an indication of the grammarians' views as regards the real — in other words historical — nature of the root concerned. Where, however, no technical or practical motive is apparent and where the particular procedure is confirmed by the modern science of comparative grammar, the latter alternative seems preferable. In other words we will have to suppose that in spite of their eminently practical attitude, there is sometimes to be seen an historical sense at the back of grammarians' minds, whatever might be its origination: instinct, intuition or divination.

In extracting a root from the concrete words we have to distinguish between two types of influences: the one which is merely external and is seen in the combinations of the initial and the final of the root with the formative elements, like *j* of √*sṛj* varying with *k, g* and *ṭ* and *ṣ* as seen above, or *i* of roots *i, iṣ,* etc., contracting into *ai* in combination with the augment *a.* The second is internal, like the gradations of the root-vowel, the appearance or the otherwise of the penultimate nasal, etc. Although its knowledge is essential for the abstraction of the root, the first type of variation belongs to the domain of Saṁdhi or the euphonic combination, with which we are not concerned. We therefore concentrate our attention on the second type of variation. We first take up the most regular and

the best known type of variation (1) *ĭ* : *e* (*ay*) : *ai* (*āy*), (2) *ŭ* : *o* (*av, avi*) : *au* (*āv*), and *ṛ* : *ar* : *ār*.

cinóti, citá	*ceṣyáti cetā*	*acaiṣīt*	√*ci*
	cáyema cáyana	*cāyayate*	
chinátti, chinná	*chetsyati chedana*	*acchaitsīt*	√*chid*
ninīthás, nītá	*neṣyati nétum*	*anaiṣīt*	√*nī*
	náyati nayana	*ninā́ya nāyayati*	
ī́hate, īhita	*ehá, ehas*		√*īh*
dī́vyati, dyūtá	*deviṣyati, dévana*		√*div*
juhuté, hutá	*hoṣyati, hotrá*	*ahauṣīt*	√*hu*
	ajuhavus, hávana	*hāvayati*	
ruṇáddhi, ruddhá	*rotsyati, ródhana*	*arautsīt*	√*rudh*
pūtvā́, pūtá	*apupot, potrá*	*apāviṣuḥ,*	
	pávate, pávana.	*pāvayati*	√*pū*
gūhati, gūḍhá	*-gohana*		√*guh*
(*juguhe, guhyáte*)	(*gūhana*)		
kṛṇóti, kṛtá	*kariṣyati, káraṇa*	*akārṣīt, cakāra*	√*kṛ*
kṛṣáti, kṛṣṭa	*cakarṣa, karṣaṇa*	*kārṣi, kārṣman*	√*kṛṣ*
sṛjáti, sṛṣṭá	*sasarja sárjana*		√*sṛj*
tiráti, tīrṇa	*tariṣyati, táraṇa*	*atāri, atārṣīt*	√*tṝ*
kīrtayati	—	—	√*kṝt*
acīklpat, klpta	*kálpate, kalpiṣyate*	*kālpanika*	√*kṛp*
	kalpana.		

In this series the roots are given, as will be seen from above, in simple vowels, and guṇa and vṛddhi vowels are derived from them. Modern linguists, however, regard the guṇa vowels as the original vowels and derive simple vowels from them by reduction or weakening. Leaving aside the consideration of the historical relations of the members of this series, if we consider the known stage of the Sanskrit only, the simple vowels certainly have all the appearance of being the original ones. In the word Rāghava, for instance, avowedly a derivative of Raghu, the guṇa form *av*<*o* evidently comes from *u*. Also in the declension, out of the forms *matiḥ, matim, bhānuḥ, bhāum,* on the one hand and *mataye, matayaḥ, bhānave, bhānavaḥ* on the other, it is the forms with the simple vowels, viz. *mati* and *bhānu* that are regarded as the stems. Guṇa-vowels are also seen to be arising out of the contractions of the simple vowels *ĭ* and *ŭ* with a preceding *ă* : *deveśa* (*deva* + *īśa*), *sūryodaya* (*sūrya* + *udaya*), etc. Such phenomena are, of course, explained as being a case of 'only a secondary application of an old habit of gradation derived from the IE Period'. Nevertheless, looked at from the special position of Sanskrit alone, they certainly tend to create

the impression that simple vowels are the originals and the guṇa vowels their product. And what applies to ī and ū also applies to ṛ, although even in Sanskrit it is sometimes felt to be a weakened form of *ar* (or of *ra*).

It will be seen that with a few exceptions, the root is almost always found unimpaired in the past participle. As has been remarked in the first chapter, this circumstance might be responsible for the use of the ppl. in the Brāhmaṇas to denote the root.

Since the guṇa-vṛddhi forms are the same for both short and long vowels,[11] only the weak forms can decide whether a final vowel of a root is to be regarded as short or long. There are some roots which exhibit both the forms and are, for that reason, read in the dhātupāṭhas in both the forms. Thus, both *i and ī* 'go' (since *īta* beside *ita, -īya* beside *-ítya, īti* beside *íti,* etc.), both *ri* and *rī* 'flow' (since *rīyate* beside *ariṇvan, rīté* beside *rit*), both *kṣi* and *kṣī* (since *kṣīṇa*[12] beside *kṣita, kṣīyate* beside *kṣiṇoti*), both *ku* and *kū* 'design' (since *kūta* beside *kauti* [which, by analogy is to be traced to a short *ku*]), both *nu* and *nū* 'praise' (since *ánūṣi* [irregular for *ánoṣi*] beside nuta), both *dhu* and *dhū* 'shake' (since *dhunoti* beside *dhūnóti, dhuta* beside *dhūtá*), both *du* and *dū* 'pain' (since *duta* beside *dūná*), and both *su* and *sū* 'procreate' (since *sauti* beside *sūte, suta* beside *sūnú*).

In the case of the medial vowels also some roots are similarly given with both short and long *i* or *u*. Thus *ṣṭhīv* 'spit' is read by some along with the traditional *ṣṭhiv*, evidently to explain forms like *-ṣṭhīvita* and *ṣṭhīvin* (also the unattested *ṣṭhīvana*) which are otherwise unexplainable: *mūṣ* along with *muṣ*, to explain *mūṣa* and *mūṣaka*: and *tūṣ* alng with *tuṣ*, probably to explain *tūṣṇīm* (of doubtful derivation).

Some other roots given with a similar two-fold radical vowel are: (with *i* : *ī*) *ikh* : *īkh, ṭik* : *ṭīk, tik- tīk, kil* : *kīl, kṣiv* : *kṣīv, tim* : *tīm, stim* : *stīm*; (with *u* : *ū*) *kuj* : *kūj, kuṭ* : *kūṭ, ghur* : *ghūr, tuṇ* : *tūṇ, luṣ* : *lūṣ, huḍ* : *hūḍ*. Many of these roots are unattested, and even in those cases where they are quotable, the attested forms do not warrant the positing of a two-fold root vowel except perhaps in the case of *stim-stīm*, provided *stīmá* and *stīmin* be from this.

11. With the exception of roots in *ū* and *ṝ* which have *avi* and *ari* as the Guṇa-, and *āvi* and *āri* respectively as the vṛddhi-grade. But the ancient grammarians regarded this *-i-* (e.g. in *bhaviṣyati*) as an additional element belonging to the suffix, and not as the integral part of the root. As far as the grammarians are concerned, therefore, they must have been guided by the low-grade forms in fixing the form of the root.

12. This is better regarded as coming from √*kṣai*.

The guṇa strengthening of a heavy radical vowel is not common in the Sanskrit. The grammarians therefore lay down an invariable rule that in the case of the medial vowels, only short ones can undergo guṇa strengthening. It is evidently to satisfy this condition that some roots which show a variation of a medial ī with *e* (e.g. *dīvyati* : *diḍéva*) have been read in the dhātup. with a short vowel (*div, sriv,* etc.), although the short vowel nowhere actually occurs in the concrete forms.[13] The case of *gūhati* : *gohana,* on the other hand, is a different one, where the lengthening comes in in supersession of guṇa[14] and the short character of the radical vowel is amply seen in forms like *guhyáte juguhe, -guhya* etc. The two guṇa-forms *góha* and *-gohana* were evidently ignored as being mainly Vedic, but *gohya* is recognized.[15]

Some roots which show *ar* and *ār* in the guṇa and vṛddhi forms respectively, exhibit in some of their weak forms *ir* or *īr* (also *ur* or *ūr* after labials) instead of *ṛ*. Thus *tariṣyati* as *kariṣyáti, tatāra* as *cakāra,* also *titīrṣati* as *cikīrṣati* but *kiráti* 'scatters' against *kṛṇóti* 'makes', *tīrṇá* against *kṛta, tīrtvā* against *kṛtvā* (also *tīryate* against *kriyáte*) etc. These roots are also given with *ṛ* but with a long *ṝ* instead of a short *ṛ* (although *ṝ* nowhere actually appears). The *ṝ* nowhere actually appears was not unknown to the grammarians is clear from the fact that in the actual process of inflection and derivation *ṝ* is replaced, right at the start, by *ir* (or *ur,* after labials P 7, 1, 100-102). Whitney (Gram. 104d, 241a) regards the *ṝ* read in these roots as being purely formal, meant only for artificially indicating the peculiarity of their treatment. Far from being artificial or formal, the supposition of *ṝ* is here very happy since, although Sanskrit *ṝ* does not represent IE *ṝ,* Sanskrit *ir* (and *ur*) are now generally accepted to have come from IE *ṝ* — a phenominon which might have been perceived by the grammarians through intuition.

kṝt 'declare' is the only case of a root being read with r as the penultimate vowel which is also likewise taught as becoming *īr* in the concrete forms. As all the forms show only *īr* and no other gradation (except the Aor. *acīkṛtat* which is sanctioned by the grammarians but is not quotable), the root may be stated practically as *kīrt,* although historilally here also *īr* comes from an older *ṝ*.[16]

13. Wh. *Gram.* 240b.

14. Cf. *ūd upadhāyā gohaḥ* p. 6, 4, 89 and the Mādh. Dh. (p. 159). *sa* (i.e. *ūkāraḥ*) *ca goha iti vikṛtanirdeśād guṇaviṣaya eva, tena juguhatur ityādau na bhavati.*

15. Cf. Mādh. Dh.: *tadabhāve* (=*kyababhāve*) *ṇyati gohyam.*

16. On this root Durgādāsa (Kkd., p. 29) remarks thus:
kīrtādeśasya nityatve'pi kṝtapāṭhaḥ kīrtādeśasya kvacid vyabhicārasūcanārthaḥ, tena acīkṛtad ityādi siddham.

Though the roots are given in simple vowels, and guṇa forms are derived from them, there are some cases where the root is read in both the grades, evidently because some forms presuppose the one, and some the other base. Thus both *īṣ* and *eṣ* ('move') (because *īṣate* beside *éṣati*), both *īj* and *ej* 'stir' (because *ījate* beside *éjati*), both *ṛc* and *arc* 'praise' (because *ṛ́c* beside *árc*, *-ṛca* beside *arká*). Grammarians also give a number of roots in *-ay* which have their counterparts (with the same or with a different meaning) in *-ǐ*. Thus *ī* : *ay*, *ci* : *cay*, *nī* : *nay*, *mī* : *may*, *rī* : *ray*, *hi* : *hay*, *pi* : *pay*. Those similarly given in *-av* along with *ŭ* are *pū* : *pav*, *mū* : *mav*, *śu* : *śav*, *plu* : *plav*. Of these, excepting the case of the roots *ī* : *ay* 'go', there are no quotable forms which necessarily presuppose *-ay-* roots beside *-ǐ-* roots, or *av-* roots beside *ŭ-* roots. In the case of the root *ay* however, *ay-* forms constantly vary with *e*-forms, as in *ayitum*[17] beside *étum*, *ayiṣyáti*, *ayāṁcakāra* beside *iyāya*, *palā-ayiṣta*[18] beside *adhy-aiṣanta*,[19] so that √*ay* deserves to be specially mentioned along with √*i*.

Some roots are similarly given with both *i* and *e* as medial vowels: kliś : *kleś*, *tip* : *tep*, *stip* : *step*, *mith* : *meth* (with its variants *mid*: *med* and *midh* : *medh*), *pis* : *pes*, *vith* : *veth*, *nid* : *ned*. Here also if we look from the point of view of the quotable forms only, there are no forms requiring a two-fold base.

WACKERNAGEL (I, LXIII, note 3) following BENFEY, remarks that four roots, which the ancient Hindu grammarians have written with a guṇa vowel, viz., *arc*, *ard*, *arh* and *spardh* could have been written in the weak grade (ie. as *ṛc*, *ṛd*, *ṛh* and *spṛdh*) because forms in weak grade are quotable from these roots: *ānṛcúḥ*, *ṛ́c*, *ṛ́kvan* etc. from *ṛc*; *ṛdantu* from *ṛd*, *ārhúḥ* (only form) from *ṛh*, and *paspṛdhé apaspṛdhethām* etc. from *spṛdh*. The reason for deviating from the usual policy of stating the root in the low grade is not far to seek. Almost all the weak grade forms from thse roots which actually occur are confined to the early period of the language and are also numerically insignificant beside the forms in the strong grade. That must be the reason why they were ignored when the form of the root was determined. This small detail once more shows, as WACKERNAGEL has remarked, that it was not the Vedic, but rather the spoken language with which the grammarians were primarily dealing. That these forms were not quite unknown to the grammarians is clear from the mention of at least three of them

17. Occurs in the Pañcatantra. Not recorded by WH.

18. Occurs frequently in the Daśakumara° 7.9; 81.8; 118.1 etc. Not recorded by Wh.

19. Occurs in the MBh. 12. 224.55. Not recorded by Wh.

viz. *apaspṛdhethām, ānṛcuḥ* and *ānṛhuḥ* in P 6,1,36. Also, √ṛc was actually posited along with *arc*, as seen above.

There are a few more roots similarly given in the guṇa grade but they exhibit sometimes forms in the low grade for which reason modern writers state these roots either exclusively or alternately in the low grade. Thus, *ribh* : *rebh* 'sing', from which we have the passive *ribhyate* (only quotable form);[20] *viṣṭ* : *veṣṭ* 'wrap' from which *viṣṭita* (only quotable form); *vip* : *vep* 'tremble'; from which Perf. *vivipre*, and the derivatives *víp, vípra* etc.; *hīḍ* : *heḍ* 'be hostile', from which Perf. *jihīḍa*, Aor. *ajīhiḍat*, ppl. *hīḍita* etc. These forms also are restricted, for the most part, to the earlier language. On the other hand *mid* 'be fat' which is given in the weak grade by the ancient grammarians, is now generally stated as *med* by the Western authorities because no forms with *i* seem to be quotable.

Finally, though the roots are as a rule given in simple vowels, the actual prevalence of the guṇa vowel had not escaped the attention of the grammarians. This is seen in the process of the traditional grammar where as a first step in the formation of the verbal forms and primary derivatives the simple vowels, when they are capable of it, are directed to undergo the guṇa-strengthening (P 7,3,84.86); The prohibition of the guṇa-strengthening (in the weak forms) is taught only by way of exception (P, 1, 1, 5).

The phenomenon next in importance to that of guṇa-vṛddhi is the one called saṁprasāraṇa, i.e. the reduction of *ya, va* and *ra* to *i, u* and *ṛ* and the corresponding reduction of *yā, vā* and *rā* to *ī, ū* and *īr* (= *ṝ*) respectively. This may be illustrated as follows :

yájate, yajñá	*iṣṭá, iyāja*	√*yaj*
jyāní, jyāyas	*jītá, jīyate,*	√*jyā*
vápati, vápana	*uptá, uvāpa*	√*vap*
hvāsyate, hvāna	*hūtá, juhāva*	√*hve*
grahīṣyati, gráhaṇa	*gṛhīta, -gṛhīti*	√*grah*
drāghīyas, drāghman[21]	*dīrghá*[21]	

20. It is interesting to note that the Kkd. (st. 357[a]) actually gives *ribh* (रेभे) as an additional root in the Sautra class.

21. Regarding these forms WHITNEY, *Roots*, p. 78 remarks under √*dṛh, dṛṁh*, 'make firm' thus: 'Divided by the Hindu grammarians into two roots, *dṛṁh* 'fix' and *dṛh* 'grow', from the latter of which are then derived *dīrghá* V and the related words *drāghīyas* ....". But this is not correct. Both *dṛh* and *dṛṁh* are given in the identical sense of *vṛddhi* 'grow'. Secondly the word *dīrghá* which is not explained by Pāṇini or other older grammarians, nor in the uṇādi-sūtras, is derived by the later grammarians from √*dṝ*. Cf. the Sarasvatīkaṇṭhābharaṇa 2, 2, 69 *dṛṇāteḥ kit* which is explained as *dṛṇāter gha-pratyayaḥ kid bhavati: dīrgha āyataḥ uccaś ca*. Ks and other commentators

Besides the above roots, there are certain others like *vac* and *vad* 'speak' *vas* 'live' and *vas* 'shine', *svap* 'sleep', *śvi* 'swell', *vyadh* 'pierce', *pracch* 'ask', *vaś* 'wish' etc. which show this gradation more or less regularly while there are certain others like *vyath* 'waver' (*vithurá* beside *vyáthate*), *prath* 'spread' (*pṛthú* beside *práthate*), *kṛp* 'lament' (*akrapiṣṭa* beside *kṝpate*), *dhvan* 'sound' (*dhúni* beside *dhvaní*) which show this phenomenon sporadically.

The roots showing this gradation are stated, in contrast with the procedure followed in the guṇa gradation in the strong or the fuller form, and weak forms are derived from it. Here the strong form was preferred because it must have been felt to be the original one that weakened itself into the reduced form under certain conditions. The element *i-* in the words like *iṣṭá* 'desired' was felt to be original that developed into *e-* in the forms like *eṣiṣyati, éṣṭum* etc.; the same element *i-*, on the other hand, in the words like *iṣṭá* 'offered, sacrificed' was felt to be a reduced form of the original *ya* appearing in forms like *yajñá yájate* etc. After all it was a case of what was actually felt as the original and what as de

The ancient Hindu grammarians recognize beside *bhrasj* (and its weak form *bhṛjj*) (*'pāke'*) also *bhṛj* (*'bharjane'*), evidently to explain forms like *bharjana* and *bharjayati*,[22] also both *mrad* (*'mardane'*) and *mṛd* (*'kṣode'*) side by side, since certain forms are made from both the bases: *mradate* beside *mardati* and *mṛdnāti, mradiṣyati* beside *mardiṣyate* etc. Similarly beside *ve* 'weave' (to which an optional substitute *vay* is taught in the Perfect), they also recognise *ūy* (in the same sense); but no forms from the base *vay* (in the Perfect) or *ūy* are met with. Beside *prath* some also give *pṛth*,[23] and beside *krap, kṛp* (which latter is exclusively favoured by the modern scholars since all the forms except *akrapiṣṭa* show *kṛp*). No ancient authority recognizes a root *vas* 'shine'; only *uṣ* ('dāhe') and *ucch* (*vivāse*) are given. The reason for this is evidently to be sought in the circumstance that no verbal forms made from *vas* continue to occur in the later language which shows only forms made from *uṣ* or *ucch*.

of the Amara. 3, 1, 69 similarly explain the word as *dṛṇāter dīrghaḥ*. Further, a root *drāgh* has been read in the dhātupāṭhas which was originally evidently meant to account for the words *drāghīyas* etc. But these latter are derived by the grammarians (p. 6, 4, 157) directly from *dīrghá* without bringing in √*drāgh*. On this Kṣ. p. 17 remarks: *kālpanike hi prakṛti-pratyaya-vibhāge drāghimādayaḥ kasmiṁścid vyākaraṇe dhātuṣv eva sādhitāḥ, evaṁ nediṣṭhādayo nedatyādeḥ.*

22. WHITNEY, *Roots*, p. 114, wrongly writes as *bharjjana* and *bharjjayati*.

23. Cf. Kṣ., p. 63: *pratheḥ saṁprasāraṇād anārṣam amuṁ* (= √*pṛth*) *manyante, evaṁ mṛdnātau sati mradim.*

Modern scholars like WHITNEY prefer the form *bhṛjj* to *bhrajj*, because of the preponderence of forms made from *bhṛjj* over those made from *bhrajj* (only *bhráṣṭra* and *bhrāṣṭra* quotable from the latter). They also often state the roots in the weak form also along with the strong one, because sometimes forms made from the weak base either interchange with, or altogether supplant, those made from the strong one. Thus from *vyadh* : *vidh* 'pierce', *vetsyati, veddhā, veddhum* (all without strong counterparts), *vedhayati* beside *vyādhayati, vedhana* beside *vyadhana* etc.; from *vā* (*ve*) : *ū* 'weave', *ótum ótave* and *ótavaí* beside *vātave;* from *hvā* (*hve*) : *hū* 'call', *hávate* beside *hváyate, ahūṣata* beside *áhvat, hávana* beside *-hváyana* etc.

Yet another weakening process is the *dropping of the medial nasal* of certain roots which takes place generally in the same circumstances where the saṁprasāraṇa takes place; the past participle, gerunds in *tvā,* (some) weak forms of the Perfect, Passive etc. Thus:

dhvasta, dadhvasé (also *dadhvaṁsire*), *dhvasyate* from √*dhvaṁs* 'scatter'.
vacyáte, vāvakre from √*vañc* 'move crookedly'.
baddhá, baddhvā́, behúḥ (also *babandhuḥ*), *badhyáte* from √*bandh* 'bind'.
bhagna, bhaktvā (also *bhaṅktvā*),[24] *bhajyate* from √*bhañj* 'break'.

Such roots are stated in the dhātupāṭha with the nasal, - i.e. the nasal is regarded as the integral part of the root, dropping out under certain conditions. This nasal, further, whether an anusvāra or a mute belonging to any class, is always written in the dhātupāṭha as a dental *n* (see below).

The extension, in some of these roots, of the nasalless stem into certain other formations (the Presents *dáśati, sájati, svájate* and the unattested *rajaṭi* P 6,4,26) from the roots *daṁś, sañj* and *svañj, rāga* 'colour' from √*rañj, syáda* 'speed' from √*syand* 'move on', *ódman* 'flowing' from √*und* 'wet', *śratha* (in *hima-śratha* 'melting of snow?') from √*śranth* 'relax' etc. is taught in the sūtrap. (P 6, 4, 25-33).

On the other hand those roots which exhibit a nasal only in a limited number of forms, and where the nasal on that account is clearly felt to be an insertion (āgama), and not an integral part, — these roots are read without a nasal in the dhātup., and the insertion of the nasal in the relevant forms is taught in the sūtrap.[25] Thus from √*muc* 'release', *muñcáti* -te ; from

24. P. 6, 4, 32.
25. P. 7, 1, 59-64.

√*majj* 'sink' *mañkṣyati* -te, *mañktavya* 'fit to be sunk'; from √*naś* 'be lost', *nañkṣyati* -te, *namśuka* 'perishable'; from *radh* 'be or make subject', *randhá-yati, randhana;* from *jabh* 'chew up', *jambháyati, jámbha* 'tooth' and *jámbhana* 'crushing', etc.

In the case of certain roots the forms without the nasal so constantly vary with those with nasals, that there have been practically set up new roots, as far as the formative aspect is concerned. Thus from *kuc* : *kuñc* 'bend, contract' *kucati* beside *kuñcita, kocayati* beside *kuñcayati* etc.; from *math* : *manth* 'shake, churn, destroy,' *máthati* (also *mathnāti*) beside *mánthati, ma-mātha* and *mamathuḥ* (also *methuḥ*) beside *mamantha* and *mamanthuḥ, amathiṣata* beside *ámanthiṣṭām, māthayati* (also *ma°*) beside *manthayati* etc. Such roots have been read in both the forms the one without the nasal, and the other with the nasal (generally indicated by the anubandha $i = u$): *bhraś* : *bhraṁś* 'fall', *dṛḥ* : *dṛṁh* 'make firm,' *raj* : *rañj* 'colour', *ac* : *añc* 'bend', *śudh* : *śundh* 'purify', *śubh* : *śumbh* 'beautify', etc.

Besides these, the grammarians similarly give a number of roots in this two-fold form which are mostly unquotable. Even in some of the quot-able ones there do not appear two-fold forms. Thus, *tup* : *tump* ('*hiṁsā-yām*'), *śuṭh* : *śuṇṭh* ('*gatipratighāte*'), *kac* : *kañc* ('*bandhane*'), *makh* : *mañkh* ('*gatau*') *lāj*: *lāñj* and *laj*: *lañj* ('*bhartsane*'), *ukh* : *uṅkh* ('*gatau*'), *gaj* : *gañj* (*śabde*'), *ghaṭ* : *ghaṇṭ* ('*bhāṣārtha*'), etc.

As against the roots with an unsteady nasal seen so far, there are certain roots which contain a nasal which is generally stable, i.e., is not liable to be dropped out where usually weak forms are expected. Such roots are read with an anubandha $i = u$: *inv* (a transfer from the *nu*-class) 'send', *uñch* 'glean', *kamp* 'tremble', *vāñch* 'desire', *guñj* 'hum', *cint* 'think', *jṛmbh* 'yawn', *nand* 'be delighted', *nind* 'revile', *bhand* 'shine', etc. Even some of these roots sporadically drop the nasal : *nidāná, nidyáte* from √*nind; bhadrá* 'fair, auspicious' from √*bhand;* perhaps *kapí* 'ape' from √*kamp,*[26] etc. Also some of these roots have nasal-less counterparts, but the two have developed slightly different though related meanings and are rightly regarded as independent roots : *vad* 'speak': *vand* : 'greet'; *cit* 'perceive': *cint* 'think'; *śak* 'be able'; *śañk* 'doubt'; *nad* 'sound'; *nand* 'rejoice'; *bhaj* 'share': *bhañj* 'break', etc.

There is a class of roots which shows somewhat complicated vowel-gradation in its forms. In these roots *ī* (in some roots *i*) alternates as a weak grade of *ai* which appears as *ā* before consonants; before vowels, the

26. Also the ppl. *kapita* (gr.), P. 6, 4, 24.

strong grade is *āy*, but in the present-stem (and a few derivatives) of some roots it is also *ay* and a mere *y* in yet a few other roots. These three types of roots are traditionally stated with a final *ai*, *e* and *o* respectively, all of them being taught as changing their final to *ā* in the systems other than the present (P 6, 1, 45). The *ī*-forms were apparently looked upon as irregular, and so special rules (for the further change of *ā* to *ī*) were framed in each case.

Of these, the roots which show an *āy* in the Present stem and which are read in the dhātupāṭhas with the diphthong *-ai*, are accordingly reckoned as belonging to the *bhū-* class (the radically accented *a*-class). Thus *gāy-a-ti gāy-in* : *gāsyati gāthá* : *gītá gītvā* from √*gai* 'sing'. Other roots showing this peculiarity are *kṣai* 'burn' (*kṣāyati* : *kṣāma* : *kṣīṇá*),[27] *dhyai* 'think' (*dhyāyati* : *dhyāna* : *dhīra*), *pyai* 'fatten' (*pyāyate* : *pyāsiṣīmahi* : *pīna* P 6, 1,28), *śyai* 'coagulate' (*śyāyati; — śyā-ya* : *śītá* P 6,1,24), *śrai* 'cook' (*śrāyati* : *śrātá* : *śrīṇāti*), *styai* 'stiffen' (*styāyate; styāna* : *-stīmá* P 6,1,23).

The forms with *ā* are, on the whole, dominant in this class. In the 3 sing. of the Perf. they show the peculiar ending *-au* of the *ā-* roots : *jagau, dadhyau;* and *siṣ-* variety of the Aor.: *agāsīt, ádhyāsiṣam.* And beside the normal forms of the Present like *gāyati,* they also show (especially in the epics) forms like *gāti, dhyāti.* Owing to this preponderance of the *ā-* forms some authorities are inclined to regard them as *ā-* roots, forming their present stems with *-ya* of the *div-* class (*gā-ya-ti, dhyā-ya-ti,* etc.).[28] But the statement of these roots in diphthongs as is done by the ancient Hindu grammarians seems to be preferable from the historical point of view since these roots were originally dissyllabic, and also because that accounts well for the vowel-gradation.[29]

There are some other roots similarly given in *-ai,* which show a like variation *āy* : *ā,* but no forms in *ī.* They are : *glai* 'be weary' (*glāyati* : *glāna*), *trai* 'save' (*trāyate* : *trātá*), *drai* 'sleep' (*drāyate* : *drāṇa*), *mlai* 'fade' (*mlāyati* : *mlātá*), *rai* 'bark' (*rāyati* : *rṇvan* ?), *vai* 'be exhausted' (*vāyati* : *vāta*). These roots also show the peculiarities of *ā-* roots in the Perf. and the Aor.: *dadrau, mamlau, vavau; glāsīḥ, adrāsīt, avāsīt;* and some of these have simple *ā-* forms in the Pres. also : *glāti, trāti* (Ved. *trāsva*),

27. Usually derived from *kṣi*, cf. P. 8, 2, 46; but better from *kṣai* as WACKERNAGEL I, p. 187 does.

28. BR, WH. *Gram.* 761e. The idea is by no means new, and is already expressed, e.g. by Durgādāsa on Kkd. St. 76 (p. 12). He says: *eṣām (aikārāntadhātūnām) ādantatvena divādau pāṭhe'pīṣṭasiddhau bhvādāu eva aikārāntatvena pāṭho gaṇakṛtam anityam iti jñāpanārthaḥ.*

29. WACKERNAGEL I, p. LXX, note 3; MACD. *Ved. Gram.* p. 331, note 4.

drāti, mlānti (and *vāti*, if √*vā* 'blow' and √*vai* 'be exhausted' be regarded as one root). Some of these roots are connected with other simple roots from which latter they seem to have been derived with an addition of *ā*. Cf. : *glai* 'be weary' : *gl̥̄ - jl̥̄* 'wear out', *trai* 'save' : *tr̥̄* 'cross', *mlai* 'fade' : *mr̥* 'die'.

Grammarians give a number of other roots in *-ai* which are not quotable: *kai* (*'śabde'*), *khai* (*'khadane'*), *jai* (*'kṣaye'*), *dyai* (*'nyakkaraṇe'*), *dhrai* (*'tr̥ptau'*), *pai* (*'śoṣe'*), *sai* (*kṣaye*), *stai* (*'veṣṭane'*).

There are a few other allied roots which have been given in *-āy* evidently because of the predominance of this form in their case. Thus *cāy* 'note' from which *cāyati* : *cīti*[30] but also *acāyiṣam, cāyitvā, cāyyate* (passive), etc.; *sphāy* 'fatten' from which *sphāyate* (*gr*) : *sphīta* : *sphāna; pyāy* (only another form of *pyai*) 'fill up; swell', from which *pyāyiṣīmahi* (beside the older *pyāsiṣīmahi, -pyāyya* 'to be nourished'. √*tāy* 'stretch' on the other hand seems to be an extension of *tan* : *tā* 'id'.

Roots stated in -e. These roots also are regarded by the grammarians as belonging to the *bhū*-class. Thus from *dhe* 'suck', *dháy-a-ti* : *dhāyas* : *dhātu* : *dhīta* P 6,4,66; from *vye* 'envelope', *vyayati* : *-vyāya* : *vyāna* : *vīta* 6,1,15; from *me* "exchange" *mayante* : *mātavya* : *mīyate*. The roots *ve* 'weave' and *hve* 'call' show *ū* in their weak forms. Thus *váyati* : *vāya* : *vāna* : *ūtá; hváyati* : *-hvāyaka* : *hvāna* : *hūtá*.

WHITNEY 761f is inclined to regard these roots also as *ā*- roots, either with *ā* weakened to *a* before the class-sign *-ya*, or with *ā* weakened to *ī* before the class-sign *a* of the *bhū*-class. From the point of view of vowel-gradation, however, their statement in diphthong seems preferable. Besides, in the case of roots *ve* and *hve*, *e* (*ay*) forms not only occur side by side with *ā* forms, but sometimes even altogether suppress them. Thus, from *ve, vayiṣyati, vayana* (beside *vāna*) *vayúna, vayitr̥, vema, vemán;* from *hve, hvayiṣyati* (beside *hvāsyate*), *hvayitum* (beside *hvātum*), *hvayana* (beside *hvāna*), *hvayitavya* (beside *hvātavya*), etc.; also from *vye, vyayiṣye*.

Grammarians also give a root *de* (*'rakṣaṇe'*) along with *day* 'take pity on'.

Roots stated in -o. Four roots, *cho* 'cut', *do* 'bind', *śo* 'sharpen' and *so* 'bind' are regarded by the grammarians as belonging to the *ya-* (*div-*) class. Besides changing their root-vowel to *ā* (further changeable to *ī*) outside the Present system, they are also said to drop their *o* in the Present

30. Not recorded by WH.

system P. 7,3,71. Thus from *cho, ch-yati : chāyayati : chāna : chita;* from *do, dyáti; -dāya : dāman : dita* and *dīṣva;* from *śo, śyáti : śāna : śita* (also Aor. *aśīta ?*); from *so, syáti : sāyayati : sāna : sita* and *sīyate* (Passive).

Since the grammarians require the root-vowel *o* in this case to drop out altogether in the Present system, and to change it to *ā* (and further to *ī*) everywhere else, it is clear that *o* is here meant to be only a technical expedient, and that it was never regarded as a genuine radical vowel. The roots had to be read with some vowel and *o* seems to have been suggested by *e* and *ai* which were used (justly in their case) with closely connected groups of roots.

On account of the accented *á* in the present stem, these roots are referred by the modern scholars to the sixth (*tud-*) class, though which vowel they regard as the radical one, and how they account for the *y* is not quite clear. Perhaps *y* here is regarded as coming for *iy* (*dyáti* for **diyáti*, etc.).[31] Even though the formation of the Present stems may thus be somehow accounted for, historically they seem to be the result of a dropping out of *ā* (*dyáti* < **dâyati*) with a shifting of the accent to the following syllable, even as in the case of forms like *dháyati*, a shortening of the root-vowel has to be assumed.

Other processes of weakening (like that of a radical *ā* into *ī*, or the dropping of *a* and *ā*) and strengthening (like reduplication) need not detain us. For regarding the form of the root, there is neither any peculiarity nor any difference of opinion between the ancient and modern scholars. Suffice it to say that, contrary to the prevalent opinion, roots have been generally stated in the strong or the fuller form, with the single exception of those showing the guṇa-gradation. We therefore pass on to other peculiarities.

Shortening. Certain roots which end in a conjunct lead by *r* (*rv, rch, rd*) are stated with a short *u* although in the actual forms everywhere (except in some forms from √*turv* 'overpower') a long *ū* appears. The lengthening of *u* to *ū* is taught in the sūtrap.[32] They are (in *-rv*) : *turv* and *thurv* 'overpower', *jurv* 'consume' and *dhurv* 'injure' (unattested are *urv* and *durv 'hiṁsāyām', gurv 'udyamane', purv 'pūraṇe'* and *murv 'bandhane'*); (in *-rch*) *murch* 'thicken; faint' and *murch* 'go crookedly; fall off' (and the unattested *sphurch 'vistṛtau'*);[33] (in *-rd*) *kurd* and *gurd* 'exult, leap, play' (unattested *urd* and *khurd* in the same sense).

31. Like the present stems *sva-* and *hva-* for *suva-* and *huva*. Wh. *Gram.* 755.
32. P. 8, 2, 78 etc.
33. v.l. *smurch 'vismṛtau'*.

As said above, except in a few forms from √*turv* like *turvá turváṇi* 'victorious', we have everywhere long forms like *tûrvati, thûrvant, dhûrvati, adhūrvīt, hūrchati,* etc. It appears to me that the only object of the grammarians in stating these roots with short *u* could be to indicate that short *u* was original and that long *ū,* although appearing everywhere, was only a secondary one, although they have not made it clear why they think so. It is not, however, difficult to find out the reasoning behind this peculiar procedure of the grammarians. All these roots in *-urv* have their counterparts in *vṛ, var, ur* or *ru.* All of them go back to roots in *r̥̄* which was preceded by a labial, mostly a *v.* Thus *turv* is connected with the root-form *tvar* 'hasten' (which forms *tvárate, tvarita,* etc.), with *tur* 'pass' (from which *turáti, tuturyāt, tūrtá,*[34] etc.), with *tir* 'id' (from which *tiráti, tīrṇá, tīrtvā,* etc.). Similarly *dhurv* is connected with *dhvṛ* 'injure' (from which *dhvárati, dhvarás, -dhvṛt,* etc), with *dhur* 'id' (from which *adhūrṣata, dhūrta, dhúr,* etc.), with *dhru* 'id' (from which *dhruta-dhrut,* etc.). Here it is the *-ur* forms that we are concerned with. These (as also the *-ir-*forms) show a short vowel in the root-stem, or when a vowel follows, but they exhibit a long vowel when a consonant follows. Thus from √*tur,* we have *turáti, túr, turá, turaṇa*[35] on the one hand, and *tūrtá, tūrṇa, tūrya, tūrti* on the other; from *jur* 'waste away', *juráti, jur* on the one hand, and *jūrná, jûrya, jûryati* on the other.

It is clear that the grammarians regarded the long vowel in *tūrṇa, tūrtá - tūrti,* etc., on the one hand and the same in *tûrvati, dhûrvati, adhūrvīt, jûrvati, jūrvīt,* etc., on the other as essentially of the same nature. In both cases it was due to the lengthening, by a following consonant, of an originally short vowel; only, in one case (*tūrṇa,* etc.) the alterant consonant happens to belong to suffix, while in the other (*tūrvati,* etc.) the consonant has come to be permanently incorporated in the root itself. In other words, the grammarians must be supposed to be instinctively aware of the relationship between roots like *tur* : *turv, jur* : *jurv,* etc. which alone explains the statement of these latter roots with a short *u.*[36]

34. IIr *tvr̥tá.*

35. *toraṇa* is a later form, formed by analogy of the roots with u as the radical vowel.

36. Cf. the lengthening in forms like *gīrbhyām gīrṣu* and *pūrbhyām pūrṣu* from the nouns *gir* 'song' and *pur* 'strong-hold' respectively—which are of a kindred origination. This lengthening is taught in P. 8, 2, 76. The same in forms like *stīrṇa śīrṇa tūrṇa* etc. is taught in the next rule, 8, 2, 77; while the same in *tūrvati thūrvati* etc. in 8, 2, 78. The close sequence of the three rules once more suggests that the grammarians had perceived the common cause of lengthening behind the three different categories.

Of the other roots in *-urv, jurv* is connected with *jvar* 'be hot' and *jṛ - jur* 'waste away'; of the unattested roots, *purv* seems connected with *pṛ - pūr* 'fill'; while the connections of *urv, durv* and *murv* are not clear.

Of the roots in *-urch, hurch* is connected with *hvṛ-hur-hru* 'be or make crooked'; and the unattested *sphurch* with *sphar- sphur* 'jerk, spurn, spring'. The connections of *murch* and *smurch* are not clear.

Roots in *-urd* on the other hand, are of doubtful origination. They lack corresponding root-forms (in *vṛ, ur*) and may have been thus stated merely through analogy.

Finally, there are at least three such roots which, contrary to the usual practice, are written with a long vowel viz. *sphūrj*[37] 'rumble' *ghūrṇ* 'waver' and *sūrkṣ* 'heed'.[38] The commentators remark that the deviation from the usual practice which is seen in writing *sphūrj* with a long *ū* is purposive and is meant to indicate that the lengthening is not universal, and that from all the roots mentioned above short forms may be occasionally met with. And Vop. accordingly reads beside *kurd* etc., also *kūrd*, etc.

The writing of *dīv*, etc., as *div*, etc., is already noticed above.

Dentalization.[39] Some roots have been written with a dental consonant as the penultimate although the actual forms generally show, not a dental but some other sound. This dental is given as a sonant mute (*d*) in one class of roots, a nasal (*n*) in another, and a sibilant (*s*) in yet another group. Thus :

1. a. Four roots (all unattested) *aṭṭ* (*'atikrama-himsayoḥ'*), *aḍḍ* (*'abhiyoge'*), *kaḍḍ* (*'kārkaśye'*), and *cuḍḍ* (*'hāvakarṇe'*) have been stated as *aḍṭ* (by some also as *aṭṭ*), *aḍḍ, kaḍḍ* and *cuḍḍ* respectively. That is, the penultimate sound is regarded as originally a dental, becoming a cerebral on account of the influence of the following cerebral.[40] It is said that the difference is seen in the formations with reduplication. Thus the Desid. and the redupl. Aor. are *aṭṭiṭiṣate, āṭṭiṭat, aḍḍiḍiṣati, āḍḍidat*, etc., while other-

37. As LIEBICH, Kṣ. p. 298 footnote, points out, writing with a short vowel, दुओस्फुर्ज in BOEHTLINGK's ed. is an error.

38. Indian grammarians do not recognize *spūrdh*, a side-form of *spṛdh* 'contend'.

39. LIEBICH, *Einführung* III, p. 32.

40. Cf. e.g. Kṣ. (p. 25): *aṭṭa atikramahiṁsayoḥ. kvipi takāraśravaṇārthaṁ topadho 'yaṁ paṭhitaḥ, ṣṭutvaṁ na kṛtam saṁdehaprādurbhāvāt.* Also M (P. 26): *dopadho'yaṁ smaryate.*

wise they would be *aṭiṭṭiṣate, āṭiṭṭat,*[41] *aḍiḍḍiṣati, āḍiḍḍat,* etc. Also, it is said, that when these roots are used as action-nouns and agent-nouns, and the final of the root is dropped (P 8,2,23), then the original dental penultimate, now free from the cerebralizing influence, reappears; thus *at, kat* and *cut.*

As none of these roots has any form in the recorded literature, it is not possible to verify the statements.

b. The root *ujjh* 'abandon' is read as *udjh.* The grammarians were certainly correct in their analysis of this root for it has obviously arisen out of $ud + j(a)h$ ($< \sqrt{hā}$). LIEBICH, *Einführung* III, p. 33, says that the confusion first started in the form *ujjhitvā,* but where he got that form I do not know. WACKERNAGEL, I, pp. 163-164, has rightly shown that the process of Prākṛtisation which is responsible for this root first appears in forms like *ujjhityai* (*Tāṇḍya Br.*) for **ujjahityai.*[42] I cannot, however, understand, how he resolves that forms into *u-jjhityai* and explains the *u-* as coming from *o* for *ava,* for this explanation does not account for *-jj-.*[43] I, therefore, think that LIEBICH and others are right in taking *ud-* as the prefix here. WACKERNAGEL says that $\sqrt{hā}$ does not elsewhere appear with the prefix *ud-,* but this does not seem to be correct for we have it in *uddhāna* 'abandoning; losing'[44] (Tāṇḍya Br. 18, 1,10), and *uddhya* 'N. of a river' (P 3, 1,115 Kāś.).

2. All the roots (belonging to the first nine classes) having a penultimate nasal in any form (either a mute belonging to any of the five classes or an anusvāra) are stated with a dental *n.* In the case of roots with an unstable nasal, the letter *n* is actually written, while in the case of roots with a stable nasal, the anubandha $i = u$ brings in *n.* Thus the roots *daṁś* 'bite', *dhvaṁs* 'fall to pieces', *stṛṁh* (*'hiṁsāyām'* Dh.), *rañj* 'colour', *indh* 'kindle', *śumbh* 'beautify' have been given, e.g., in the P. Dh. as *daṁś-á* (I, 1038), *dhváṁs-u* (I, 791), *ṣṭṛṁh-ū́* (VI, 71), *ranj-a* (I, 1048), *ñi-índh-ī* (VII, 11) and *śúṁbh-á* (VI, 33); and *niṁs* 'kiss', *raṁh* 'hasten', *śaṁk* 'doubt', *vāñch* 'desire', *luṇṭh* 'rob', *kamp* 'tremble' as *ṇís-i* (II, 15), *ráh-í* (I, 768), *śák-i* (I, 86), *vách-í* (I, 223), *lúṭh-í* (I, 366) and *káp-i* (I, 400).

41. The same forms hold good according to some, if this root be regarded as *aṭṭ* (i.e. *topadha*); according to others the forms in that case would be *aṭiṭṭiṣate* and *āṭiṭṭat.*

42. A later form *ujjhitya* (Dharmasindhu introductory st. 4; not recorded by WH.) still shows a vague consciousness of the origin of this root.

43. WHITNEY, *Roots,* p. 12, throughout writes this root as *ujh* (*ujhati, ujhāṁ cakāra* etc.), but this is not correct. Strictly the forms should be written with *-jjh-,* which is also confirmed by metre. (Cf. e.g. Raghu° V, 75).

44. *'atyantaṁ parityāga uddhānam'* (Sāyaṇa).

In other cases also, where a root undergoes a nasal strengthening (e.g. √*muc* becoming *muñca* in the Pres. stem), the augment as actually taught is the dental nasal (*n*).

In all the above cases this dental nasal stays when it is followed by a semivowel (only -*v* is possible within roots); but otherwise it is made to pass into an anusvāra (P. 8, 3, 24) which stays if a sibilant or *h* follows; but if a mute follows, the anusvāra further becomes a nasal mute of the following consonant's class (P. 8, 4, 58).

The whole procedure, unless it be purely a technical expedient, amounts to saying that all penultimate radical nasals are really dentals, and that they pass on into an anusvāra or a nasal mute corresponding to the following consonant only under the influence of the latter. If the grammarians really held this view, they have not said it in so many words,[44a]— unless this procedure itself is to be understood as an indication of such a view. And in the actual language there are certain phenomena which tend to lend support to this view. Thus there are cases where in the cognate forms an anusvāra or a para-savarṇa alternates with *ṇ*. Here we have *n* when it is followed by a vowel, but otherwise an anusvāra or para-savarṇa. This happens, for instance, in the Present-forms of the roots of the nasal-infixing class where the strong forms show the full syllable *na*, but an anusvāra or para-savarṇa in the weak forms. Thus, *piṁṣánti* beside *pináṣṭi* (√*piṣ* 'pound'), *híṁsanti* beside *hinásti* (√*hiṁs* 'injure'), *yuṇkté* and *yuñjate* beside *yunákti* (√*yuj* 'yoke'), *tṛṁhanti* beside *tṛṇeḍhi* (√*tṛh* 'crush'), *pṛñcánti* beside *pṛṇákti* (√*pṛc* 'mix'), *aumbhan* beside *unap* (√*ubh-umbh* 'confine'); in the Nom. and Acc. plural of Neuter stems: *yaśāṁsi, havīṁṣi, yajūṁṣi* and *-bhāñji, -hunti* beside *vanāni, vārīṇi, madhūni, dātṝṇi;* in the roots with a final *n*: *jighāṁsati* and *jáṅghanti* from √*han* 'smite', *mīmāṁsate amaṁsta* from √*man* 'think'. (But the anusvāra comes from *m* + *s* also, as in *jigāṁsati agaṁsi gaṁsyate*[45] from √*gam* 'go'). Lastly, a striking example of a noun from the Intensive stem comes in view, viz. *sanisrasá* 'fragile' fr. √*sraṁs* 'fall'. Here apparently *n* seems to have reappeared under cover of the following vowel *i*. Grammarians also teach formations like *vanīvacyate, °vañcīti, danīdhvasyate, °dhvaṁīti, banībhraśyate °bhraṁśīti* etc. (P. 7, 4, 84), but they are not met in the recorded literature.[46]

44a. See, however, the kārikā quoted in the foot-note 48b below.

45. This form occurs 46 times in the *Mahābhāṣya* in a constantly recurring expression *katham anucyamānaṁ gaṁsyate*? 'How will this be understood if not expressly said' Not recorded by WH.

46. On the other hand the dental nasal in the reduplications of the Intensive stems *ganīgam-* and *panīphaṇ* does not seem to have been satisfactorily explained.

3. Six roots, viz. *vraśc* 'hew', *saśc* 'accompany', *bhrajj* or *bhṛjj* 'fry', *majj* 'merge', *lajj* 'be ashamed', and *sajj* 'be attached' are stated with a dental sibilant *s* instead of the palatal *ś*. For the original dental *s* in √*vraśc* we have a direct proof in the derivative *-vraska* (in *yūpa-vraská* 'hewing the sacrificial post'), where the original *s* is to be regarded as reappearing when the following *c*, which exercises palatalizing influence upon the preceding sibilant, is itself changed to a guttural. √*saśc* is really a weakened reduplicated form of √*sac* (the Pres. stem *sáśca-* from *sá-s(a)c-a* with a transfer to the *bhū-* class, like *śīda-* from *śa-s(a)d-a-*).

The case of √*bhrajj* and √*majj* is slightly different. Here *s* becomes *d* (P. 8, 4, 53) and finally passes into *j* (P 8, 4, 40). No dental sibilant is seen anywhere in the concrete forms from these roots. Yet the comparative philology has now conclusively proved that in the original I.E. there was such a sibilant in these roots; only it was a sonant one which, as is well known, is lost in Sanskrit (its sole remnant is seen in the Skt. *madgú* 'a diver-bird'). It is therefore creditable to the ancient Sanskrit grammarians that they should have instinctively sensed the sibilant and given it in as nearly a correct form as was possible in the limits of the known stage of the language. WACKERNAGEL (I, p. 163) denies this credit due to the grammarians, saying that Pāṇini must have read √*majj* as *masj* in order to mechanically account for *-d-* in the derivative *madgú* without necessarily having any instinctive or intuitive perception of the historical fact in this case. But this argument really proves nothing. For, in the first place, Pāṇini nowhere himself gives any derivation of this word in the *Aṣṭādhyāyī*—it is in the *uṇādi* I, 7 that the word is derived from *masj*—and, secondly, even accepting such a view, what derivative from √*bhrajj* could there possibly be before Pāṇini's eyes, as would necessitate the postulation of that root with a sibilant penultimate ?[47]

The case of *lajj* and *sajj* is still different. As has been ingeniously suggested, √*lajj* has probably developed out of *lajjate*, a Prākṛtism for *rajyate* 'becomes red', passive 3 sing. fr. √*raj-rañj* 'redden'. √*sajj* must have similarly arisen out of *sajjate*, a Prākṛtism for the passive *sajyáte* fr. √*saj- sañj* 'be attached'. It is, of course, not impossible for *sajj* to come from a weakened reduplicated form of √*sanj* itself: *sajj* <*sa-s(a)j-* like √*saśc* fr. √*sac*). But as we have generally *sajjate* in the Ātmanepada against *sájati* which is in the Parasmaipada, and secondly, as the weakened redupli-

47. LIEBICH quotes from the commentaries two forms *bhradga* and *bhradgya* as coming from √*bhrasj* where *-s-* is represented by *-d-*. These forms, though theoretically possible, do not seem to have occurred in the recorded literature. Indeed they do not even appear to have been noted in the lexicons, old or new.

cated form appears as *sej* in the Perf. *sejuḥ* and *seje*,[48] the first explanation appears better. And so the statement of these two roots with a sibilant penultimate is to be regarded as merely due to analogy.

Yet another type of the use of the dental may best be mentioned here. Roots which contain the conjunct *-cch* after the radical vowel are stated with a single *-ch-*. In the concrete forms a *t* is inserted after the radical vowel (P. 6, 1, 73; 75) which, by the general *saṁdhi* rule (P. 8, 4, 40), becomes *c*. Thus we have *ucchati* from √*uch*, *mlecchati* from √*mlech* etc. It is interesting to note that the grammarians had perceived the fact that the occurrence of *-cch* in forms like *ucchati* was of the same nature as the one in e.g. *śivacchāyā* from *śiva* + *chāyā* (the prefixion of *c* to *ch* in both types of cases is taught in one and the same rule). They were not, however, in a position to understand the real nature of this apparently prefixed element which they took to be a dental mute *t* (the same, by the way, as the one affixed to the roots *ci* or *su* in forms like *agni-cit*, *soma-sut* P. 6, 1, 71) subsequently palatalized by the following palatal sound. Modern science of comparative grammar has however shown that Sanskrit *-ch* was, from the beginning, a complex sound going back to *sk*(*h*) (i.e. with *s*, and not *t* as the first element), so that forms like *śiva-cchāyā* or *ucchati* are to be regarded as showing its older form whereas *chāyā* etc. contain its reduced form owing to its initial position. The Tattvabodhinī remarks that the motive in writing the roots with *-ch* instead of with *-cch* is to effect economy.[48a]

This particular type apart, the consideration of the material as a whole certainly makes the impression that in these various cases the penultimate was read as a dental, not because it was technically convenient, but because that was thought to be its real nature.[48b]

Cerebralization. A large majority of the roots beginning with *s* are liable to change it to *ṣ* under certain circumstances; and a similar majority

48. Occurs in the Buddhacarita IV, 80; not recorded by Wh.

48a. *'na ca yuccheti cakāra-chakārāv uccāryetāṁ kiṁ anena tugvidhāneneti śaṅkyam, bahuṣu dhāturūpeṣu cakāra-chakārayor uccāraṇe gauravāc, 'che ca'* (P. 6, 1, 73) *ity asya śivacchāyetyādāv āvaśyakatvāc ca'.*

48b. Cf. the kārikā which runs thus:

nakārajāv anusvāra-pañcamau jhali dhātuṣu
sakārajaḥ śakāraś ca, ṣāṭ ṭavargas tavargajaḥ

This stanza expressly says (inter alia) that the penultimate nasal mutes and anusvāras arise out of dental nasal, and *ś* out of *s*. The stanza, however, could be interpreted as merely reproducing, in its own words, the technique of the sūtrap., without necessarily expressing any view as to the real nature of these radical sounds.

of those beginning with *n* are liable to change it to *ṇ*, again under certain circumstances. In order to indicate the particular roots which thus undergo cerebralization, they are actually written in the dhātupāṭhas with a *ṣ* or *ṇ* as the case may be. In the actual process of inflection and derivation, these sounds are first reduced to their normal dental form (*dhātvādeḥ ṣaḥ sah, ṇo naḥ* P. 6, 1, 64-65). It is then taught that those roots written with an initial *ṣ* change *s* to *ṣ* under such-and-such circumstances; and those with a similar *ṇ* change *n* to *ṇ* under such-and-such circumstances. Thus from *ni* + √*sad* (*ṣad-ḷ*ˇ P.Dh. I. 907), *niṣīdati, niṣasāda, niṣaṇṇaḥ* etc.; from *pra* + √*nam* (*ṇam-á* P.Dh. I, 1030), *praṇamati, praṇanāma, pranataḥ* etc. Roots which do not share this feature are written with their natural sound. Thus *sṛj-á* P.Dh. VI, 121, (from which *visṛjati visasarja, visṛṣṭaḥ* etc.), *nṛt-ī* P.Dh. IV, 9) from which *parinṛtyati, pranṛttaḥ*).

It is hardly necessary to add that this procedure of actually writing the cerebral in the dhātup. is purely a technical device and is meant to avoid repetition of these roots in the particular sūtras where cerebralization is taught (or, conversely, to dispense with the enumeration of exceptions, according as one follows this or that method).[49]

It has been said above that the forms of roots as we find fixed in the P.Dh. have been invariably accepted by the later grammarians. Here we have to note a single exception of the Kk. Dh. where in one or two cases roots have been stated in a form different from the traditional one. Thus in the first class there is a group of roots ending in *-ṣ* which is given in all other dhātupāṭhas, with a long *ū* as the penultimate: *cūṣ* 'pāne', *tūṣ* 'tuṣṭau' etc. (P.Dh. I, 704-714). This *ū*, of course, remains unchanged: *cūṣati* etc. Kk. however, reads five roots from this group with a short *u* as the radical vowel viz. *cuṣ, tuṣ, puṣ, muṣ* and *suṣ* (Kk. Dh. I, 284-288). The lengthening of the radical vowel instead of the guṇa is accounted for in the commentary by citing a rule '*cuṣāder dīrghaḥ*', apparently from Kk. sūtrap. The remaining roots from this group (*bhūṣ, ūṣ*, etc.) are however read with a long vowel as in the other dhātupāṭhas. Further, four roots from the sixth class viz. *pṛ* 'be employed', *mṛ* 'die', *dṛ* 'heed' and *dhṛ* 'sustain' are read in this dhātup. as *prī, mrī, drī* and *dhrī* (VI, 111-114) respectively. The actual forms given are as usual: *priyate, mriyate* etc. No special rule is cited and, curiously, neither is it necessary for the Present forms (*prī* + *a* + *te* = *priy-a-te* by the usual rules). How the forms with *ṛ* (e.g. *vyāpṛta*) were

49. For the possibility of Pāṇini having borrowed this technique of cerebralization from his predecessors, and for the irregularity of writing like *ṣnā* (for *ṣṇā*), *ṣtuca* (for *ṣṭuca*), *ṣthage* (for *ṣṭhage*) in the editions of WESTERGAARD and BOEHTLINGK, see LIEBICH, *Einführung* III, pp. 31-32.

derived from these *-rī* roots in this system we do not know, for the comm. is silent on this point. Thirdly instead of the usual *śucy* and *cucy* (P. D. I, 546; both '*abhiṣave*') Kk. reads *śuc* and *cuc* (plus *śūc* and *cūc* I, 231) in the first class. The forms *śucyati* etc. are accounted for in the comm. on the strength of a rule '*divāder yan*'.[50] If, then, these roots were looked upon as belonging to the fourth class why they were not shifted to that class we do not now.

Barring these few exceptions, which are of a doubtful character, the statement of roots is everywhere in the same form.

We have seen so far what the grammarians' concept of the root was, and have also noted some typical forms of the statement of roots in the dhātupāṭhas. We shall continue this study of the roots of the Skt. dhātupāṭhas with respect to some other features in the next chapter.

50. = Kt. 3, 2, 33; cf. P. 3, 1, 69.

CHAPTER VIII

ROOTS (*Continued*)

VIII

ROOTS (*Continued*)

A living language is usually capable of being divided, at any given point, into the earlier and the later stage. A language, when it is in daily use, often tends to make less and less use of certain features till gradually they become obsolete. On the other hand it also develops some new features, either in the place of the old and obsolete ones, or simply as a new addition. A spoken language, when historically viewed has thus a double aspect: one which represents the more or less conservations or stable features common to both the stages of the language while the other the changing ones or innovations — which latter may be again either dead and obsolete, or they may belong to the class of the younger innovations.

This applies to Sanskrit also, particularly in that stage in which Pāṇini found it. Quite a large majority of his rules apply to the Sanskrit language as it was spoken in his days, and as it had been spoken generations before him. But beside these there are also rules which, as he himself says, apply either only to the older, or only to the younger stage of the language. *Chandasi* is the expression used by him while speaking of the earlier language in general, while the expression *bhāṣāyām* refers to the actual spoken language, which had changed considerably from the language of the older texts.[1]

It is necessary to have a clear idea of the exact nature and extent of the literature which Pāṇini denotes by the terms like *chandas*. In the Aṣṭādhyāyī, *chandasi* does not have its original or literal sense, viz., 'in the songs' or 'in the metrical texts'; the expression is rather used to denote the holy scriptures in general, old or new, and in verse or in prose. It thus includes both the Veda proper and the Brāhmaṇas (the *mantradala* and the *brāhmaṇadala* as the Kāśika [I, 2, 36] puts it). *Chandasi* thus may be translated, with PAUL THIEME,[2] as 'in sacred literature', and is synonymous with the other expression used, viz., *nigame* (P. 6, 3, 113, etc.). Put in a different terminology, it practically means 'in the older language' or, as LIEBICH[3] puts it 'in the pre-classical language' (in der vorklassischen Sprache). When

1. It goes without saying that the rules—and they form the large majority—which are given without any reference to the period, apply to the whole language.
2. *Pāṇini and the Veda*, p. 68.
3. *Pāṇini*, p. 26.

Pāṇini wants to restrict the scope of a particular rule to the Veda only— i.e., when he wants to exclude the brāhmaṇas — he uses the term *mantre* (P. 2, 4, 80; 3, 2, 71; 3, 96, etc.). Further the expression *ṛci* (P. 6, 3, 133) or *ṛkṣu* (P. 8, 3, 8) 'in the metrical text' narrows down the field of the mantra to the Vedic stanzas (not necessarily of the Ṛg-Veda), while its counterpart *yajuṣi* (P. 6, 1, 117, etc.) "in the sacrificial formula' limits the same to the prose sacrificial formulas. Lastly, the term *brāhmaṇe* 'in a brāhmaṇa' is clear enough and is equivalent to *amantre chandasi* of P. 3, 1, 42. (It may also be noted that Pāṇini distinguishes between older and younger Brāhmaṇas [and also kalpa-sūtras].)

It will thus be seen that while dividing the language, in the first instance, into the earlier and the later stage, Pāṇini further divides the earlier language into two further stages, so that the whole development is marked by the three stages: *mantra, brāhmaṇa* and the *bhāṣā*. He does not mention specifically the Upaniṣads and the Sūtras, the former of which he evidently includes in the Brāhmaṇas; the Sūtras, on the other hand, while sometimes retaining features of the older language come very near to Pāṇini's *bhāṣā*. This linguistic position of the Sūtras is aptly described in the oft-quoted dictum: *chandovat sūtrāṇi bhavanti* which, drawing attention to its occasional archaic form implies the essential *bhāṣā*-nature of the language of the Sūtras.

The transition of the meaning of the term *chandasi* from 'in a song; in a metrical text' to 'in the sacred literature', (or, 'in the older language in general') implying, with this, a certain archaicness of language, is not difficult to explain. As Liebich[4] has happily explained, already the oldest Brāhmaṇas, which form the oldest specimens of Sanskrit prose, were considerably removed from the language of the Ṛg-Veda. At this time the term *chandasi* must have meant naturally 'in the Vedic stanza'. Later on, however, with a great change in even the current language in the course of time, the term *chandasi* was extended even to the language of the Brāhmaṇas on account of the common characteristic of the archaic language; till, finally such forms in the Sūtras and similar irregularities even in the classical poetry[5] were accounted for as being *chandovat.*

Bearing in mind this stratification of the language, and particularly the significance of the term *chandasi* in the Aṣṭādhyāyī, let us now turn to the dhātup. Here we find two groups of roots given under the title *chandasi.* One of these, containing about a dozen roots comes from the 3rd class (P.Dh.

4. *op.cit.*, pp. 26-27.
5. Cf. the maxim: *chandovat kavayaḥ kurvanti.*

III, 14-25), and the other with a little less number of roots from the 5th (P. Dh. V, 26-34).

That certain roots are peculiar to the Vedic language was already noticed by Yāska who distinguishes (Nir. II, 2) between the *naigama* roots and the *bhāṣika* roots, and remarks that sometimes primary derivatives from *bhāṣika* roots are met with in the Veda and, conversely, also derivatives from the *Naigama* roots in the *bhāṣā*.

The list of Vedic roots, which is almost fixed, continues to be given down to the latest dhātup. It is dropped only in the works of the Jain authors, viz. J, Śā. and H.

Besides these roots, one occasionally comes across passages in the Vārttikas and the Bhāṣya which describe as *chāndasa* some roots which were not included in that category by Pāṇini in his dhātup. Thus the Vā. 1 to P. 1, 1, 6 Bh.I, p. 55) speaks of the *chandoviṣayatva* of the roots *dīdhī* and *vevī* (*dīdhī-vevyoś chandoviṣayatvāt*, paraphrased by Kaiyaṭa as *bhāṣāyām etayoḥ prayogābhāvāt*). Similarly the Bhāṣya (III, p. 11) to the Vā. 2 on P. 6, 1, 6 says that the roots *sas* and *vaś* are Vedic (*ṣasi-vaśī chāndasau*). Lastly, on the roots *pṛ* and *smṛ* (v.l. *spṛ*) (V, 12-13) Kṣ remarks that they are *chāndasa-prāya*).

This is all the ancient grammarians have to say about the Vedic roots.

But if we turn to WHITNEY'S '*Roots*' (p. 243) we will find quite a different story. There he has given 'nearly 200' as the number of the roots peculiar to the earlier language. Dropping from these roots those which have first appeared in the Sūtras, roots which have not been read by Pāṇini, roots posited by Whitney himself and also other doubtful cases, there still remain a large number of roots, which, according to WHITNEY'S '*Roots*' have appeared only in the Vedas and the Brāhmaṇas (= Pāṇini's *chandasi*), but still these roots appear in the dhātup in the general category of roots, and not in the one marked as *chandasi*. I give below the list of such roots, which leans rather on the side of exclusion, than inclusion:

akṣ 'mutilate', *īḍ* 'praise', *ubh-umbh* 'confine', *cat* (meaning ?), *cāy* 'note, observe,' *jas* 'be exhausted,' *jū* 'be swift', *taṁs* 'shake', *turv* 'overcome', *tṛṣ* 'be thirsty', *tṛh* 'crush', *thurv, dabh-dambh* 'harm', *dṛh-dṛṁh* 'make firm', *dhanv* 'run', *dhurv* 'injure', *nakṣ* 'attain', *nabh* 'burst', *pṛc* 'mix', *maṁh-mah* 'be great, bestow', *mīv-mū* 'push', *mṛṇ* 'crush', *yup* 'obstruct', *rad* 'dig', *radh-randh* 'be or make subject', *raṇ* 'take pleasure', *rap* 'chatter', *rā* (*rai*) 'bark', *rej* 'tremble', *liś* 'tear' (only Brāhmaṇa), *vī* 'enjoy etc.', *ven* 'long', *vyac-vic* 'extend', *śvi* 'swell', *śrī* 'mix', *sap* 'serve', *sas* 'sleep', *sūd* 'put in order', *skambh* 'prop', *stigh* 'mount', *hvṛ* 'be or make crooked'.

How is this difference between the two different records to be explained? Unless there is something wrong with the transmission of the Vedic roots in the dhātupāṭhas, and believing also that the extant literature has been correctly recorded, it appears to me that these roots are to be understood as being still current in the spoken language in Pāṇini's days. And, of course, the possibility that these roots might have appeared in the literature which might have been lost is not to be entirely ruled out.

But, it might be objected, there might be another explanation of this phenomenon. Pāṇini need not necessarily be the first to fix the list of the Vedic roots. The list might have been drawn up already before him, at a time when the gulf between the spoken language and the language of the scriptures was not so wide, and consequently fewer roots had become obsolete, as e.g. seen in the dhātup. After Pāṇini we find the same list of Vedic roots given by one grammarian after another. And who knows that Pāṇini also did not similarly reproduce the list, already fossilized before him?

The objection seems reasonable at first. But we should not forget that Pāṇini was still near a part of the Vedic literature (i.e. the Brāhmaṇas) whereas the later grammarians were far removed from it. Secondly, it does not seem reasonable that Pāṇini who is so scrupulous in specifying the different strata in the Aṣṭādhyāyī would in his dhātup feel satisfied with the third-rate performance of reproducing a fossilized list without caring to take into consideration the actual conditions of the language. Besides, there are some roots which, according to the testimony of the existing literature (as seen in WHITNEY'S 'Roots') have occurred only in the metrical Vedic mantras and have become obsolete already at the time of the Brāhmaṇas. They are:

akṣ 'attain', *at* 'wander', *inv* 'send', *jeh* 'loll', 'pant', *jri* 'go', *tu* 'be strong', *tuj* 'urge, thrust,' *tvakṣ* 'fashion', *tviṣ* 'be stirred up', *dāś* 'make offering', *nimṛ* 'kiss', *nikṣ* 'pierce', *pan* 'admire', *bhand* 'be bright', *bharv* 'devour', *bhyas* 'fear', *bhrī* 'consume', *raṁh*[6] 'hasten', *ramb* 'hang down', *śnath* 'pierce', *śvit* 'be bright', *saśc* 'accompany'.

Now, we can roughly say that the grammatical studies started and began to make progress in what is called the Brāhmaṇa-period. If, then, these roots, which according to our present records do not appear to have come down even in the earliest Brāhmaṇas, had disappeared totally even from the spoken language then surely it would be reasonable to expect

6. According to *'Roots'* the Present forms of this root are restricted to RV but *raṁhati* is met with in the Vedānta Sūtra III, i.1.

at least these roots in the list of Vedic roots, no matter how long before Pāṇini the list was compiled. As it is, their non-mention in it seems to indicate that these roots were still alive, in the spoken language or in some lost texts, unless some convincing proof is adduced to explain the things in some other way.

It must, of course, be said here that the case of the later dhātupāṭhas in this respect is quite different. Nobody will argue, simply because the roots given in the above two lists are not restricted to the Vedic literature by these later grammarians also, that these roots were current in the spoken language of their days also. They just mechanically passed on the lists as they had received, that is all. Nor could they always have much facility for comparing the two stages of the language, considering how steadily Sanskrit was going out of the daily use more and more. But with all this, and even admitting the possibility of mistakes in individual cases in the traditional list, we cannot forget that a distinction was all along made between the roots of the earlier and those of he later language.

Let us now go to the other end. There is a considerable number of roots which, according to the testimony of the recorded literature make their first appearance only in the Epics (the Rāmāyaṇa and the Mahābhārata) or in the classical literature. Curiously enough, however, these roots will be found already listed even in the oldest dhātupāṭha, viz. that of Pāṇini. These roots, which are not attested before the Epics are (according to WHITNEY'S *'Roots'*) about 46:

aṭ 'wander', *ujjh* 'forsake', *katth* 'boast', *kuṭṭ* 'crush', *kūrd* 'leap', *klid* 'be wet', *kliś* 'distress', *kṣviḍ* 'hum', *khel* 'stagger,' *garj* 'roar', *glah* 'gamble', *ghaṭ* 'strive', *ghaṭṭ* 'rub', *ghūrṇ* 'weaver', *ghṛṣ* 'rub', *cumb* 'kiss', *cur* 'steal', *tark* 'think', *tarj* 'threaten', *trap* 'be abashed', *dal* 'burst', *dev* 'lament', *dhukṣ* 'kindle', *puth* 'crush', *pluṣ* 'burn', 1 *phal* 'burst', 2 *phal* 'fruit', *bhaṣ* 'bark', *mārg* 'chase', *raṭ* 'howl', *lakṣ* 'mark', *lag* 'attach', *laṅgh* 'leap', *lal* 'sport', *las* 'be lively', *luñc* 'tear', *luṇṭh* 'rob', *lul* 'be lively', *loc* 'see', *vīj-vyaj* 'fan', *vṛṁh* 'roar', *vell* 'stagger', *vrīḍ* 'be abashed', *śrambh* 'trust', *stim* 'be stiff', *hreṣ* 'neigh'.

Similarly still younger roots (about 52) which do not appear in the literature before the classical period are:

aṅg 'move', *aṇṭh* 'visit', *kās* 'cough', *kuth* 'stink', *kūṇ* 'shrink', *klam* 'be weary', *kvaṇ* 'sound', *khac* 'show through', *khañj* 'limp', *gal* 'drop', *galbh* 'dare', *guñj* 'hum', *guph-gumph* 'twine', *cak* 'quake', *cakās* 'shine', *cañc* 'dance', *cūṣ* 'suck', *ṭal* 'be confused', *ṭīk* 'trip', *ḍamb* (with *vi-*) *'mock'*, *ḍī* 'fly', *ḍhauk* "approach', *tim* 'be quiet', *truṭ* 'come to pieces', *tvaṅg* 'leap', *dul* 'raise', *dyu* 'attack', *naṭ* 'dance', *puṭ* 'scale', *phakk* 'swell' (?), *muṭ* 'break',

raṅg 'rock', *rac* 'produce', *raṇ* 'ring', *rambh* 'roar', *riṅk riṅg* 'creep', *lā* 'grasp', *lāñch* 'mark, *luṭh* 'roll', *vaṇṭ* divide', *val* 'turn', *vāh* 'press', *vyay* 'spend', *vruḍ* 'sink', *śal śaś* 'leap', *sthag* 'cover', *sphaṭ* 'split', *had* 'cacare', *hikk* 'sob', *hiṇḍ* 'wander'.

How are we to account for the presence of these roots in the Pāṇinian dhātup. when our present records show that they belong to a late period like the epic and even the classical one? It would seem that Pāṇini had taken these roots from the spoken language where they were current although they had not yet entered the literary language. It is true that a few of these roots (like *ujjh, kās, kuth, klid, kliś, khel, gal, galbh,* etc.) have occasional derivatives and sporadically even secondary verbal forms in the earlier literature and may have been posited for that reason. But the majority belong exclusively to the epic and classical period. Perhaps it might be suggested that these roots were artificialy introduced in the language by later authors solely on the authority of the dhātupāṭhas. Such a solution, though probable in the case of solitary instances like those of *dyu aṅg,* etc., which do not seem to have become current coin, is unthinkable in the case of the large majority which has come to stay. It is against all laws of the growth of a language. We are therefore led to assume that the majority of these roots were current in the spoken language.

We have thus, on the one hand, roots which on the authority of the existing literature had gone out of the language but which Pāṇini has not restricted to the chandas; and on the other roots which, again on the authority of the existing literature, are of so late a currency as to be practically post-Pāṇinian, and still we find them already recorded by Pāṇini. This should serve to show, that the testimony of the existing literature, however valuable in itself, is by itself not always a sure guide as to the genuineness or otherwise of a given vocable in any stage of the language.

The question which I now propose to discuss is regarding the 'individuality' of the roots, if I may use such an expression. A criticism is sometimes made that the Sanskrit grammarians did not pay sufficient attention to the peculiar features of individual roots. The grammarians mechanically derived, it is alleged, entire sets of forms in all tenses and moods without caring to see whether the individual character of a root admitted all these forms, and also, whether such forms really existed in the language. "From the school-grammars of these languages (Sanskrit, Greek, etc.)", says BATAKRISHNA GHOSH, "it would appear that the bare mention of a particular root is enough to develop and set forth in all its details the complete verbal system, but an historical study of these languages will soon dispel this idea. It will show that almost every root has its own special features, that by no means are all the roots susceptible of all the voices,

moods and tenses, and that according to the manner of action (aspect) the root had to assume special forms, though in the later dialects the variety of forms has been greatly simplified. A glance at WHITNEY'S *Roots* will show that a wide gulf separates the actual language from the language of the grammars."[7] Though this criticism is directed against the 'school grammars' or mere 'grammars', it is really meant against the traditional Sanskrit grammar in general, since the school grammars are based on the commentaries like those of Sāyaṇa and Bhaṭṭoji who, in their turn, only explain the teaching of the Sūtras. This becomes clear when GHOSH remarks expressly that "Indian grammarians failed to render a faithful account of the Vedas"[8] and again further "Indian grammarians failed even to distinguish properly between the different moods."[9]

It must be said at the outset that Pāṇini (or, for that matter, any other Sūtrakāra) nowhere says categorically that every root is capable of every conceivable form in all the ten *lakāras* (tenses and moods). All that the grammarians do is that they give the list of roots on the one hand, and the sets of stem-building and personal endings on the other, with information on various formative elements, strengthening and weakening processes, etc., together with, what is important, instructions on behaviour of particular roots under particular circumsances. There is nothing in all this to suggest even remotely that the grammarians regarded every root as capable of developing into a complete verbal system.

But fortunately we don't have to rely on such negative evidence for ascertaining the views of the grammarians on this subject. Even a casual perusal of the grammarians' rules on verbal flection will suffice to show that the grammarians were not unaware of the fact that certain roots show certain forms only. Thus

1. The whole section on root-suppletion is nothing but the recognition of the phenomenon that certain roots have conjugational forms in certain systems only, and that consequently the deficient forms are made up from other synonymous roots. Thus P. 2, 4, 35-57 teaches substituting of certain roots by some others in the *ārdhadhātuka* formations, according to which we have *átti* (√*ad* 'eat') in the Pres., but *aghasat* (√*ghas*) in the Aor.; *hánti* (√*han* 'strike') in the Pres., but *avadhīt* (√*vadh*) in the Aor., *éti* (√*i* 'go') in the Pres., but *ágāt* (√*gā*) in the Aor.; *ásti* (√*as* 'be') in the Pres. but *ábhūt* in the Aor., *babhúva* in the Perf., and *bhaviṣyáti* in the Fut. etc. Similarly P. 7, 3, 78 teaches, inter alia, that roots *dṛś* 'see',

7. *A Linguistic Introduction to Sanskrit*, p. 20.
8. *Op.cit.*, p. 18.
9. *Op.cit.*, p. 21.

sṛ 'move' and *śad* 'fall' are replaced, in the *sārvadhātuka* formations by *paśya, dhau* (when quick movement is implied) and *śīya* respectively. So we have *dadárśa adrākṣīt*, etc., but *páśyati, sasâra asarat* but *dhâvati, śaśāda śatsyati* but *śīyate.*

It will be seen that the traditional grammar had correctly noted this phenomenon of certain roots having no Present forms, and others having no Aorist forms. The ancient grammarians, however, did not attempt to explain this. For this we are obliged to the modern comparative grammar which accounts for this phenomenon by a reference, on the one hand, to the 'aspect' of these roots (instantative in one case; durative in the other), and to the original non-temporal character of the I.E. verbal system.[10] We cannot, however, blame the ancient grammarians, in this or similar cases, for not giving an explanation of such things. Thus GHOSH says in regard to the grouping together of reduplicating roots: "Reduplicating roots have been classed together by all ancient Indian grammarians, but that only from a mechanical point of view. None of them has ever tried to show why particular roots have to reduplicate and others not."[11] The criticism is entirely out of place for the ancient grammarians had set themselves the task of only describing the facts of the language, not of explaining them; to give only the how of the things, and not the why.

2. Apart from these cases of a general type, certain individual roots also were noted as being deficient in certain forms, for which apparently no reason can be shown. Thus √*vac* 'speak' has, according to the concurrent opinion of the grammarians no forms in at least 3. pl. Pres. Ind. Thus Kṣ (p. 112) says: *vacantīti neṣyate, anabhidhānāt.* Sāyaṇa quotes him and also cites Bhoja: *'na vacantiṁ prayuñjate'*. From Sāyaṇa we further know that Ātreya was inclined to accept only the forms of the Sing., which seems to be supported (in the Pres. system) by the later literature. On this root MWD (p. 912) remarks: 'occurs only in the sg. *vacmi, vakṣi, vakti,* and Impv. *vaktu.*'

Another instance is that of √*ghas* 'eat'. On this root Bhaṭṭoji, basing his inference on P 2, 4, 40 remarks: *ayaṁ na sārvatrikaḥ,* and then enumerates the forms which this root can have. The forms do not exactly tally with those actually found in the literature, but the remark at least serves to show that the grammarians by no means regarded every root as capable of every form. Where such forms were inferred, they were based on analogical extension as to what might be expected if the root were capable of being conjugated in a given mood or tense.

10. Cf. e.g. Luis H. GRAY, *Foundations of Language*, pp. 212-213.
11. GHOSH, *Op.cit.*, p. 144.

3. Certain roots are regarded, if not by all, at least by some grammarians, as having only nominal derivatives, and no verbal forms. Thus regarding the roots (P. Dh. I, 62-65a) *ant* and *and* (*'bandhane'*), *ind* (*'paramaiśvarye'*), *bind* (*'avayave'*) and *gaṇḍ* (*'vadanaikadeśe'*), Sāyaṇa (under P. Dh. I, 65a) quotes the opinion of Kāśyapa that these five roots have no verbal forms, (*atyādayaḥ pañcaite na tiṅviṣayā iti Kāśyapaḥ*) while other grammarians regarded verbal forms also as legitimate (*avigītam*). Here Kāśyapa seems to be correct for in the actual literature we have only nouns like *ánta* 'end', *andū* 'the chain for an elephant's feet' (L.), *Indra* 'Name of a god', *bindu* 'drop, dot' and *gaṇḍa* 'cheek'. LIEBICH considers the posibility of Pāṇini also agreeing with Kāśyapa as not ruled out—an inference which he draws from the peculiar position of √*gaṇḍ* here, whose proper place is elsewhere (near I, 344-345).

In his comm. on the Kkd., Durgādāsa refers to this view, but he mentions only two of these five roots, viz. *gaṇḍ* and *bind*: in the former case he attributes this view to 'some' in general, but in the latter to the Dhātupārāyaṇa specifically. His remarks on these two roots are thus: *kecit tu gaṇḍa iti śabdasya vyutpattyartham evāyaṁ dhātur mantavyo, na tv asyānyatra prayoga ity āhuḥ;* Similarly on *bind*: *bindur iti śabdasya vyutpattyartham evāyaṁ dhātur mantavyo na tv asyānyatra prayoga iti Dhātupārāyaṇam.* He adds one more root to this list, *kul*, on which he comments thus: *anye tu bandhuṣu = jñātiṣu vartamāno'yam, anyatrāsya na prayogaḥ 'gaḍi gaṇḍe' itivad ity āhuḥ.* It will be seen that the language of Durgādāsa is clearer and more explicit, in that he expressly says that these roots are assumed merely to account for the above mentioned single derivatives.

According to the above view these roots had absolutely no verbal forms. But Yāska had noted another peculiarity with some other roots. In an oft-quoted passage (Nir. 2, 2) he says that in the case of some roots, verbal forms alone are used by some people and derivatives alone by others, and cites hte cases of the roots *śav* (or *śu*) (*gatikarmā*) and *dā* (*lavanārthe*), which were used in verbal forms alone among the Kambojas and the Easterners respectively, and in derivatives (*śava* and *dātra*) alone among the Aryans and Northerners respectively.

4. The Sautra roots. Certain roots which do not appear in the dhātupāṭhas, but have been mentioned in the sūtras (either proper grammatical or uṇādis)—and hence called the sautra roots—are regarded as being extremely limited in their forms.[12] Only a few of these, like *jū, tu, stambh, skambh* and *sku* have verbal forms, while the rest have mostly one or two

12. *pṛthak-pāṭhas tv eṣāṁ niyataprayogasūcanārthaḥ*, as the Kāvyakāmadhenu says (under Kkd. st. 354).

nominal derivatives only. Thus, to take the first four roots from the Sautra section of the Kkd.; from *kark* are derived *karkaśa* and *karkaṭa* only; *cañk* is given for the sake of *cañkura* only; *mark* give *markaṭa* only; *sikatā* alone is attributed to *sik*, and so on. This separate grouping of these roots is thus one more proof of the recognition on the part of the grammarians, of the fact that not all roots are equally productive.

5. There is a passage in the Bhāṣya (III, p. 275) under P 7, 1, 95 Vā. 8 which enunciates a dictum of Sanskrit grammar that words taught in a general way may in actual practice be found to be restricted to only particular usages. The above Vārttika argues that the rule concerned which teaches substitution of the stem *kroṣṭṛ* in the place of *kroṣṭu* in certain forms is superfluous for the desired forms can be obtained independently from the stem *kroṣṭṛ* without the substitution; and the next Vārttika says that the rule is neither necessary to prevent the stem *kroṣṭu* encroaching on the sphere of *kroṣṭṛ* for that is already accomplished as elsewhere (*anyatra*). Patañjali brings out the full significance of Kātyāyana's argument by explaining it as referring to the general maxim that words taught in the grammar in a general way often happen in the actual language to be restricted to some particular forms. And he explains the word 'elsewhere' (*anyatra*) by citing cases of three roots which, he says, though taught without any restriction, have only some definite forms made from them: √*ghṛ* is restricted to *ghṛta ghṛṇā* and *gharma*;[13] √*raś* to *rāśi raśmi* and *raśanā* and √*luś* to *loṣṭa* (*anyatrāpy aviśeṣavihitāḥ śabdā niyataviṣayā dṛśyante. kvānyatra? tad yathā: gharatir asmā aviśeṣeṇopadiṣṭaḥ, sa ghṛtaṁ ghṛṇā gharma ity evaṁviṣayaḥ; raśir asmā aviśeṣeṇopadiṣṭah sa rāśiḥ raśmiḥ raśanety evaṁviṣayaḥ; luśir asmā aviśeṣenopadiṣṭaḥ sa loṣṭa ity evaṁviṣayaḥ*).[14] Here Patañjali means to say that just as the extent of actually available forms of these roots, though not specified in grammar, is known from other sources, thereby hinting at the actual usage of the language, similarly the respective spheres of the two stems *kroṣṭṛ* and *kroṣṭu* will be similarly known without requiring a sūtra to that effect.

Whether one approves of the reasoning in the Vārttika or not — personally I do not approve of it, for by such a logic almost the whole of

13. Apparently this does not refer to √*ghṛ* 'drip, wet, moisten' which has been actually read in the dhātup. thrice in that sense (*'secane* I, 985; *'kṣarana-dīptyoḥ'* III, 14, and *'prasravaṇe'* X, 108), for verbal forms like *jigharti*, although restricted to the earlier language, are common enough. It has therefore to be taken as referring to some root meaning 'be hot' etc. (also presumed by BR), not found in the present P.Dh. cf. also the other two roots (*raś* and *luś*) which belong to a similar class. Cf. also foot-note 14 below.

14. On the roots *raś* and *luś*, which are not met with in the present P.Dh., Kaiyaṭa remarks: *raśi-luśī apaṭhitāv api Bhāṣyakāravacanād boddhavyau.*

grammar would become superfluous—the maxim quoted in the Bhāṣya viz. *aviśeṣavihitāḥ śabdā niyataviṣayā dṛśyante* and its application to the actual productivity of roots is important for our present question. For it is evident that three cases have been cited only by way of illustration and that what applies to these particular cases, applies to the whole body of roots in general.[15] It shows that the grammarians by no means regarded every root as capable of every form and that according to them the actual forms of a root were to be ascertained from the practice of the language.

There is another side to this whole question. It is alleged that WHITNEY'S *'Roots'* shows that a wide gulf separates the actual language from the language of the grammars. While the importance of the actual existing literature and the need to be generally guided by it is all-too-evident, it will be a mistake to pin ourselves down exclusively to the evidence of the extant literature in the matter of ascertaining the productivity of individual roots. Much of the literature which the grammarians knew at first hand is irrevocably lost and, apart from it, even the extant literature, in spite of the admirable efforts of the modern scholars, may not have been fully recorded. This is by no means to underrate the value of the works like WHITNEY'S *'Roots'* but to point out that they cannot be taken, for the reason stated above, as reflecting fully the language known to the grammarians. In order just to show how the recording can be incomplete I give below a list of forms from nearly 80 different roots, all of which have appeared in the published literature but they either are completely missing in the *'Roots'*, or are enclosed in the rectangular brackets, meaning to convey thereby that they are prescribed or authorized by the grammarians but are not found ('and, for the most part, destined never to be found' WHITNEY) in the literature; or, they have been assigned there to some particular period but actually I have come across their occurrence in some other period also. These instances (which, by the way, came casually to my notice), come on the one hand from the epic Mahābhārata (mostly Śānti-parvan), and on the other from mainly two classical works the Daśakumāracarita and the Buddhacarita, but occasionally from also other works like Svapnavāsavadattā, Pañcatantra, Kādambarī, Harṣacarita, etc.

15. It is a mannerism of Patañjali to quote three instances to illustrate a proposition. Thus explaining the same doctrine of the *niyata-viṣayatva* elsewhere (under P 1, 2, 70, Vā. 3; Vol. I, p. 251) he says that one uses the words *lohita, kṛṣṇa* and *śveta* with reference to a bull but the synonymous words *śoṇa, hema and karka* respectively with reference to a horse. We have already seen that he cites (thrice) *vap, īḍ* and *kṛ* to demonstrate the *anekārthatva* of roots. Cf. also his paraphrase of the expression *dharmaniyama* (occurring in the very first Vārttika) as (i) *dharmāya niyamaḥ*, (ii) *dharmārtho niyamaḥ* and (iii) *dharmaprayojano niyamaḥ*.

Roots	WHITNEY		*Literature*
aṭ 'wander'	[*āṭa*]	*āṭa*	Harṣ. 201.12;231.6.
ad 'eat'	—	*ādithāḥ*	MBh. 12,139,79.
arc 'honour'	—	*arcayitavya*	MBh. 12,109,21.
arh 'deserve'	*arhaṇīya* C.	*arhaṇīya*	MBh. 12,25,33.
aś 'eat'	*aśa* R[1]	*aśa*	MBh. 12,308,142.
as 'be'	(*syāmahe* C[1])	*syāvaḥ*	MBh. 12,139,81.
ās 'sit'	—	*sam-āsatuḥ*	MBh. 12,221,8.
ī-ay 'go'	[(*adhy-*)*aiṣṭa*]	*adhyaiṣanta*	MBh. 12,224,55.
"	[*āyiṣṭa*]	*palāyiṣṭa*	Dśk. i.9;81.8;18.1.
"	—	*ayitum*	Pañcat.
"	—	*pratyayita*	Bcar. I, 47.
idh-indh 'kindle'	*indhita* C.	*indhita* *indhayet*	MBh. 12,208,23.
ujjh 'leave'	—	*ujjhitya*	Dharmasindhu st,4.
ūrṇu 'cover'	—	*prorṇuta* (ppl)	Dśk. 57.17.
kam 'love'	[*acakamata*]	*acakamata*	Dśk. 119.5.
kaṣ 'scratch'	—	*ni-kaṣya*	MBh. 12,198,4.
kas 'open'	*cakase*	*vicakāsa*	Harṣ. 209.19.
kū 'design'	*kuvate* ŚB[2]	*kavate*	Yaś. I, 9.9;470.6.
kṛ 'make'	*acīkarat*	*acīkṛthāḥ*	MBh. 12,323,17.
"	*acikīrṣīs* ŚB	*acikīrṣīt*	Bcar. II, 44.
kṣaṇ 'wound'	—	*kṣaṇyete*	MBh. 12,137,72.
kṣam 'endure'	[*kṣāmyati*]	*kṣāmya*	MBh. 12,349,3
ksi-kṣī 'destroy'	[*cikṣāya*]	*cikṣiye*	Bcar. VIII, 1.
ksi-kṣī 'destroy'	*kṣīyáte* VB	*kṣīyāmaḥ*	MBh. 12,329,18.
kṣip 'throw'	[*akṣaipsīt*]	*akṣaipsīḥ*	MBh. 12,148,18.
gad 'say'	[*agādīt*]	*agādīt*	Dśk. 48.22.
gam 'go'	*agāmi* RV	*agāmi*	Dśk. 9. 2.
gāh 'plunge'	[*agāhiṣṭa*]	*agāhiṣi*	Dśk. 66.15;73.6.
guñj 'hum'	[*juguñja*]	*juguñja*	Harṣ. 129.1.
grah 'seize'	—	*gṛhītṛ*	MBh. 12,152,22.
ghrā 'smell'	[*aghrāsīt*]	*āghrāsiṣam*	Dśk. 73.13.
cañc 'dance'	—	*vi-cañcita*	Bcar. I,61.
car 'move'	—	*cartṛ*	MBh. 12,35,7;36,20.
"	—	*cāri*	MBh. 12,253,34;50.
cāy 'note'	[*cacāye*]	*cacāyire*	Śiśupāl° XII, 51.
cumb 'kiss'	[*acumbīt*]	*acumbiṣam*	Dśk. 74.17.
"	—	*cumbitvā*	Dśk. 96.14.
chid 'cut off'	[*cechid-*]	*acecchidiṣṭa*	Bcar II, 40.
jan 'give birth, be born'	—	*jajñiyām*	MBh. 12,258,13.
jyā 'overpower'	*jyāní* AV.B	*jyāni*	MBh. 12,170,12.
jval 'burn'	—	*ajājvaliṣṭa*	Bcar. II, 50.
trap 'be ashamed'	[*trepe*]	*apatrepire*	Harṣ. 134.4.
daṁś 'bite'	—	*adaṁśi*	Dśk. 10.25.
dakṣ 'be able'	*dakṣate* etc. VB.	*dakṣasva*	Yaś. I, 350.2.
dviṣ 'hate'	*didveṣa* ŚB.	*vi-didveṣa*	Bcar V, 15.
dhā 'put'	—	*abhyadhāyiṣi*	Dśk. 81.9.
dhṛ 'hold'	*dhareran* AŚS[1]	*dharamāṇa*	MBh. 12,66,7.
		dharate	Svapna. III.
"	—	*dhārayīta*	MBh. 12,261,26.
naś 'be lost'	*aneśat* VB.	*aneśat*	Naiṣadh. XIV, 56.
"	—	*naṅkṣanti*	MBh. 12,147,7.

Roots	WHITNEY		Literature
nī 'lead'	—	*ā-nayīta*	MBh. 12,288,7.
paś-spaś 'see'	—	*apaśyetām* (pass.)	MBh. 9,21,27.
puṣ 'thrive'	—	*poṣṭum*	MBh. 12,277,19.
prī 'please'	(*priyanti* R[1])	*priyasva*	MBh. 12,139,74.
		priyamāṇau	MBh. 9,33,7.
budh 'know'	*bhotsyati* B.	*bhotsyanti*	MBh. 12,202,13.
bhāṣ 'speak'	[*abhāṣi*]	*abhāṣi*	Dśk. 8.23.
bhid 'split'	[*bebhid-*]	*abebhidiṣṭa*	Bcar. II, 40.
bhīṣ 'fear'	—	*bhīṣet*	MBh. 12,94,37.
bhṛ 'bear'	*bibhramāṇa* RV[1]	*abibhrat*	MBh. 12,308,10.
yāc 'ask'	*ayāciṣṭa* B	*ayāciṣṭa*	Dśk. 124.15.
"	—	*ayācithāḥ*	MBh. 12,192,59.
raṁh 'hasten'	*raṁhati* RV	*raṁhati*	Br. Sūtra III, 1.1.
"	—	*raṁhitum*	Br. Sūtra Śāṁkara. Bh. III, 1,10.
ram 'enjoy'	*arīramat* etc. RV.	*arīramam*	Dśk. 74.9.
rah 'desert'	[*rahati*]	*rahati*	Yaś. I, 429.4.
lag 'attach'	—	*lagitum*	Kādam. Kale's ed. p. 194.
lap 'prate'	[*alāpīt*]	*alāpi*	Dśk. 8.14;29.11.
		alapiṣam	Dśk. 107.5.
labh 'take'	—	*lapsitum*	MBh. 12,122,9.
las 'be lively'	—	*vilesuḥ*	Harṣ. 133.12.
lih 'lick'	*alikṣat* S.	*alikṣat*	Dśk. 66.17.
ve 'weave'	*vāyaka* C.	*vāyaka*	MBh. 12,210,34.
viś 'enter'	—	*viśyati*	MBh. 12,70,18.
vyaj 'fan'	*vyajate ?* C.	*avyajan*	Bcar. 1, 19.
vṛt 'turn'	—	*avartiṣṭa*	Dśk. 70.7; 81.12.
		prāvartiṣi	Dśk. 77.7.
vṛdh 'grow'	[*vardhiṣyate*]	*avardhisyetām*	Dśk. 6.12.
vraj 'proceed'	*vivrajiṣa* (in d.)	*parivivrajiṣāmi*	Bcar. V, 28.
śaṁs 'praise'	*śasyáte* V.	*śaṁsyate*	MBh. 12,195,7.
śam 'be quiet'	[*śamiṣyati*]	*śamiṣyati*	MBh. 12,188,19.
śiñj 'twang'	[*śiśiñje*]	*śiśiñjire*	Harṣ. 134.3.
sañj 'hang'	*sejus* ŚB.	*seje*	Bcar. IV, 80.
sū 'give birth to'	[*asāvi*]	*asāvi*	Harṣ. 219.19.
so 'bind'	—	*-sin*	MBh. 12,64,6.
sphāy 'fatten'	[*sphāyate*]	*sphāyatām*	Yaś. I, 402.10.
"	[*pasphāye*]	*pasphāyire*	Harṣ. 162.21.
sphur 'jerk'	[*sphuriṣyati*]	*sphurisyati*	MBh. 12,188,11.
sphul 'bloom'	—	*vipusphuluḥ*	Harṣ. 134.5.
smi 'smile'	[*asmeṣṭa*]	*asmeṣi*	Dśk. 96.17.
svap 'sleep'	—	*pra-supeta*	MBh. 12,234,2.
had 'cacare'	*hadati* C (-te)	*hadate*	Yaś. I, 512.2.
han 'smite'	—	*ghnantum*	MBh. 12,324,4.
hiṇḍ 'wander'	*ahiṇḍanta* C[1]	*hiṇḍase*	Yaś. I, 350.4.
heṣ 'whinney'	[*heṣiṣyate*]	*aheṣiṣyata*	Bcar. VIII, 41.
hlād 'refresh'	[*ahlādiṣṭa*]	*āhlādiṣata*	Dśk. 92.9.
hlād 'refresh'	[*jahlāde*]	*jahlādire*	Harṣ. 200.18.

As said above, this is only a list of cases which came casually to my notice. If a deliberate search is made it is likely that the list will be considerably augmented. And it serves as a warning against drawing hasty conclusions on the basis of the recorded literature alone.

This brings us to the problem of what are called the unattested or the unauthenticated roots. It is well known that only a little more than one third of the roots listed in the dhātupāṭhas are actually met with in the literature; the remaining do not appear anywhere except in the grammatical literature. A peculiarity of these roots is that they are, so to say, barren in that many of them have hardly more than one or two derivatives (and even these, partly, are of a doubtful nature); while a few of these have apparently no derivatives at all. Thirdly, a considerable portion of these unattested roots has such a striking rhyming resemblance to their attested counterparts as to suggest, at least prima facie, their artificial creation. For these reasons this whole body of unattested roots is now generally regarded as fictitious or purely 'a product of scholastic inventiveness'. It is believed that these roots were 'made' partly for explanation of words supposed to be derived from them (on the *nāmāny ākhyātajāni* theory), and partly for other reasons, unexplainable in certain cases. And though it is conceded that 'some of these may yet come to light, or may have existed without finding their way into any of the preserved literary documents' the majority of them is regarded as hardly likely ever to turn up.[16]

Now it is a fact, and we must admit it, that a large portion of the roots of the dhātupāṭhas have not been attested in the existing literature, beyond having solitary nominal derivatives in some cases. But having admitted that, it must be asked whether it is fair to condemn the whole class of these roots as fictitious, simply because they do not happen to occur in the recorded literature? Even though they do not appear in the extant literature, how do we know that they also never occurred in the literature that is lost? It is generally known that a great deal of Sanskrit literature is lost but one is not always fully conscious of the immense magnitude of the lost literature. Whole recensions of the Vedic Saṁhitās like the Bāṣkala and the Aitareya of the ṚV and the Mauda of the AV. are known to have been lost. It is said that the Ṛgveda had 21 śākhās, Yajurveda 101, Sāmaveda 1000, and Atharvaveda 9 (or 5, according to some).[17] The Anukramaṇī

16. Edgren, the *Verbal Roots of the Sanskrit Language, JAOS* 11. 1-56; Whitney, *Grammar,* 108a, T. Burrow, *The Sanskrit Language,* p. 288.

17. Cf. the MBh. 12,330, 32-34:
ekaviṁśatiśākhaṁ ca Ṛgvedaṁ māṁ pracakṣate /
sahasraśhākaṁ yat Sāma.....
.....

refers, under ṚV I, 99 to a *sūkta-sahasra* of Kaśyapa. Even leaving aside such references which are at least partly apparent cases of exaggeration, we have still some indications of the possibility of considerable Vedic literature being lost before it was collected in the present Saṁhitās. Already Yāska quotes some ṛcs, either whole or parts, which we cannot trace in the present Vedic Saṁhitās.[18] And more than a thousand years after him Saṁkarācārya quotes a mantra as from a Brahmasūkta of the Atharvaveda but it is not found in the present text of that Veda.[19] Yāska also quotes prose passages, evidently from the Brāhmaṇas (including the Upaniṣads) introduced with various remarks like *'iti ha vijñāyate,'*[20] *'iti nigamo bhavati,'*[21] *'ity upaniṣadvarṇo bhavati,'*[22] *'iti ca Brāhmaṇam'*[23] which one will expect in vain to find in the existing Brāhmaṇas. There are also Brāhmaṇas like the Saulabhāni mentioned by Patañjali and those of the Bhāllavins and Śāṭyāyanas referred to in the Kāśikā (both under P. 4, 3, 105) and a host of others like Caraka, Maitrāyaṇī, Śvetāśvatara, Kāṭhaka, Jābāla, Khāṇḍikeya, Aukheya, Hāridravika, Bāṣkala, etc., to name only a few, which are nothing more than names to us. Of the Sūtras, P. 4, 3, 110-11 mentions the Bhikṣu-sūtras of Karmanda, and the Naṭa-sūtras of Kṛśāśva and Śilālin;[24] similarly Kāśikā to P. 4, 3, 105 mentions the Kalpasūtras named Paiṅgī, Āruṇaparāji[25] and Āśvaratha about which we know next to nothing. Coming to the classical literature of the Kāvya type, Pāṇini (4, 3, 88) mentions a class of literature on the subject of Śiśukranda (sort of lullaby songs ?), and such topics as Yamasabha (the Court of Yama), Indrajanana (the birth of Indra)—to which Kāśikā adds Pradyumnāgamana—nothing of which has

ṣaṭpañcāśatam aṣṭau ca saptatriṁśatam ity uta/
yasmiñ śākhā Yajurvede so'ham ādhvaryave smṛtaḥ //
pañcakalpam Atharvānam.....
kalpayanti hi māṁ viprā Atharvāṇavidas tathā //

Cf. also Mahābhāṣya under Vā. 5 (Vol. I, p. 9) which gives exactly the same figures of the recensions except that it describes the AV as *navadhā* instead of the *pañcakalpa* of the MBh.

18. There are seven quotations in the first half of the Nirukta. They are: *niṣṭvaktrāsaś* etc. I,10; *na vā amum* etc. II, 14; *ime sutā indavaḥ* etc. IV, 17; *tvām Indra matibhiḥ* etc. IV, 19; *Agniḥ pavitram* etc. V, 6 (also occurs in the Āp. Śr. 12.19.6); *babdhām te harī* etc. V, 12; and *sa taurayāṇa upa* etc. V, 15.

19. *brahma dāśā bhrahma dāsā brahmaiveme kitavā* etc. under Br. Sūtra II, iii, 43.

20. Nir. I, 9; II, 17; III, 4.

21. Nir. III, 5.

22. Nir. III, 13.

23. Nir. III, 20; V, 4.

24. And there is no unanimity of opinion that the bhikṣu-sūtras of Pārāśarya referred by Pāṇini (4,3,110) are the same as the Vedānta-sūtras of Bādarāyaṇa.

25. On the authority of the Tantravārttika I, ii, 6 Yuddhiṣṭhira Mīmāṁsaka, *Itihāsa*, p. 178, suggests that the original reading of the Kāśikā might have been *Āruṇaparāśaraḥ*.

come down to us. Pāṇini himself is credited with the authorship of two poems Pātālavijaya and Jāmbavatīvijaya (or are they but two names of one and the asme poem ?), only stray lines from which appear scattered in the commentaries of later authors. In the Mahābhāṣya there are in all about 40 metrical quotations from the Kāvyas[26] of whose source we are entirely ignorant. Patañjali himself mentions ākhyāyikās named Vāsavadattā, Sumanottarā and Bhaimarathī (under P. 4, 3, 87), ākhyānas called Kaṁsavadha and Balibandha (under P. 3, 1, 26. Vā 7), a Vārarucaṁ kāvyam and Jālūkāḥ ślokāḥ (P. 4, 3, 101, Vā. 3) which have gone to the limbo of oblivion. Coming down still further Kālidāsa mentions among his predecessors the dramatists Kaviputra and Saumilla,[27] and Bāṇa in the beginning of his Harṣacarita refers to one Bhaṭṭāra Haricandra,[28] of whose works we are quite in the dark. If we turn to the other branches of learning like the Logic, Grammar, Philosophy, Medicine, Astronomy, etc., we will find the pages of the existing works on these subjects bristling with citations of the names of the older authors and quotations from their works—our knowledge about these being limited solely to these citations. It is needless to multiply illustrations, but a typical case may be mentioned as being highly instructive. Hemādri, the celebrated author of the Caturvargacintāmaṇi, and a contemporary of Vopadeva has given total figures of works written by Vopadeva on the different śāstras. The total comes to 26, but unfortunately no more than nine of these have come down to us.[29] If this is the state of affairs with reference to an author who lived as late as the thirteenth century, then one has only to imagine what must have been the fate of the innumerable works in the centuries that preceeded him. In the face of this overwhelming evidence indicating the vast extent of the literature that is lost, and considering the relatively fragmentary character of the literature which happens to have come down to us it will be wholly unwarranted to condemn the whole class of the unattested roots as 'fictitious' or 'figments of imagination' or 'products of scholastic inventiveness' simply because they do not chance to occur in the literature which is before us.

Not only that the literature that has come down to us is very fragmentary as compared to that which was known to the grammarians, but even what exists cannot be said to have been thoroughly recorded. There is still scope for considerable improvement in the present records. I have

26. Dasagupta and De, *History*, p. 11.

27. Of Saumilla (or Somila) we learn from Rājaśekhara that with Rāmila he was a joint author of a Śūdraka-kathā.

28. This Haricandra is evidently different from Haricandra, the author of the Jīvandhraracampū who (the latter) probably came centuries after him.

29. See Kavikalpadruma, p. xxxii.

already shown above how in the case of about 80 roots some representative verbal forms actually appearing in the published literature have not been correctly accounted for in WHITNEY's *'Roots'*. Instances from similar fields can also be adduced to show that our older records badly need a thorough revision in view of the new material brought to light. LOKESH CHANDRA, e.g., has shown in the Preface to his edition of the Jaiminīya Brāhmaṇa (Kāṇḍa II, pp. ii-vii) that the Vedic Concordance of BLOOMFIELD, under the very first letter *a*, does not note hundred odd references of the JB as against a bare 19 which it has taken note of; and a dozen entries are not at all found there. He further (pp. xxii-xxiv) gives a list of 120 odd words and compounds new to MW (a large number of which, he claims, are also new to RENOU's *Index Védique*, a supplement of Vedic words to MW). Similar lists of vocables new to MW will be found in CALAND's prefaces to his editions of the Brāhmaṇas and sūtras, and also in some other works of other editors who have studied the texts from this point of view. In my own studies of the Mahābhārata I have come across a number of words which are either not found in MW at all, or are referred to a later period. In fact the Sanskrit Dictionary planned by the Deccan College of Poona when completed is bound to yield a rich harvest of words unknown to the previous dictionaries.

Coming to our own subject, the number of the attested roots has gradually increased, with the coming to light of newer and newer material, as seen in the successive stages marked by the *Petersberg Lexicon* (1875), the smaller Lexicon by BÖHTLINGK (1884), WHITNEY's *'Roots'* (1885) and MWD (1899). It is true that after WHITNEY there has not been appreciable addition to the stock of attested roots, yet the period cannot be said to be entirely barren. In this period have come to light, for the first time, the forms of roots *śoṇ* 'redden', *drāgh* 'lengthen', and *śīk* 'sprinkle'. In the Harṣacarita I have come across two more roots which belong to the unattested category and whose forms have not been noted in any modern dictionary. They are *kaṇ* 'clatter' (*akāṇīt* 201; *cakāṇa* 125) and *gaj* 'roar' (*jagajuḥ* 129). Two other similar cases which I have come across are those of *bad* 'be firm or established' and *mav* 'bind': *bādyate* occurs in the MBh. (Crit. Ed.; 12, 186, 20) and *mavitukāmaḥ* in the Dūtavākya (between sts. 39-40) of Bhāsa. In his edition of the Kāṇva recension of the Śatapatha Brāhmaṇa CALAND has brought to light forms of the roots *vicch* 'go', *bhrāś* and *bhlāś* 'shine', which were so far known only from the grammarians. An investigation of all the critically edited works which have appeared since the publication of the above-mentioned dictionaries is very likely to reveal some more roots. What is also important to bear in mind is that not only single works have been the sole repositories of roots, as e.g., in the case of √*pis* 'stretch' whose forms have survived in the Śatapatha Brāhmaṇa

alone, or √*śoṇ* whose sole representative form *śuśoṇa* is preserved in the Harṣacarita alone, but even individual recensions can be sole witnesses to the genuineness of certain roots, as seen in the case of *bhrāś* which have been attested, as seen above, in the Kāṇva recension of the Śatapatha alone (as against the occurrence, in the corresponding passages, of √*bhrāj* in the Mādhyaṁdina recension). Therefore, theoretically, the possibility of the forms of other roots coming to light in future cannot be ruled out.

There is another aspect of the question which must be considered, viz. the nature and the extent of attestation that might be regarded as sufficient for a root to be genuine. Quite a large number of the unattested roots will be found exemplified by Bhaṭṭi in his Bhaṭṭikāvya and by Halāyudha in his Kavirahasya. Now, although these are not purely grammatical poems (say, like the Daiva) but they also tell a story or portrait the character of a particular king, at the same time explaining grammatical formations, still the occurrence of roots in these works is not regarded as sufficient to certify them as attested on the presumption that the sole authority for such an usage is the dhātup. itself, and not any independent literary tradition. Apart from the theoretical possibility of the roots being known to these poets from the now lost literature or from the spoken language,[30] one might as well ask why the very use of these roots by these poets should not in itself be deemed as sufficient for qualifying them to be called genuine? If a poet also happens to be a grammarian, does that circumstance bar him from being at the same time a *śiṣṭa* whose usage we regard as paramount? Supposing that by some miracle the Pātālavijaya (or Jāmbavatīvijaya) is discovered and supposing further that it is found to contain forms of the so far unattested roots, what shall be our attitude towards these roots then? Let us consider another theoretical possibility. Suppose a poet of to-day without any grammatical bias writes a poem or a play and employs in it some of the so far unattested roots without any object of explaining grammatical formation. Shall we in these two cases regard these roots as become authenticated, or shall we still call them as artificial and fictitious?

The question regarding the latter possibility posed above has a practical significance. Some of the roots which are included in the category of attested (and hence genuine) roots have appeared in single works, belonging to more or less a later date. The roots like *shoṇ* occur in the Harṣa-

30. It is interesting to note that in the introduction of the Kavirahasya Halyāyudha expressly says that he is going to illustrate only such roots as are current in the daily parlance and in the Śāstras (*lokeṣu śāstreṣu ca ye pravṛttāḥ*), but a good portion of the roots treated by him are not met with in the extant literature.

carita alone, *ṭīk* in the Mālatīmādhava alone, *culump* in the Mahāvīracarita alone, *aṅg* in the Nalodaya alone, *dyu* in a work of sāyaṇa alone, *āñch* and *ṭkuth* in the Suśruta alone, etc. One can as well argue (and, as a matter of fact, some have actually argued) that these roots also must be regarded as fictitious, since their occurrence must be looked upon as artificial, based on the authority of the grammarians alone. Indeed, one could even take one bold step further and declare all the hundred and forty odd roots, which have appeared in the classical literature alone without showing any trace in the older literature — and, of course, without having any connections in the cognate languages — to be fictitious, their usage in that literature being presumably based solely on the authority of the grammarians!

Let us now consider the argument based on the productivity of roots. Along with the non-appearance in the recorded literature, absence of productivity, or low productivity, is another argument brought forward to prove the fictitiousness of the roots we are considering. It is true that these roots have, in each case, nothing more than one or two nouns with which they could be connected (and even doubtfully, in some cases). But, theoretically, it must be pointed out that productivity is only relative. A root of frequent occurrence like *gam* may give hundreds of forms, and another like *pard* may practically have no quotable form; and yet the latter can be equally as genuine as the former. And between these two extremes there are various grades of productivity. Some roots like *cākās, cyut, jakṣ, jagh, jeh, dī, dhūrv, nas,* etc., have only verbal forms and no nominal derivatives; some like *kal, kuṭṭ, kūḍ, gu, daṁś, puth, guṇṭh, sthag,* etc., have only secondary conjugational forms and no primary conjugation; *dram* has only intensive forms, and *maṇ* only the ppl.; those like *pat* 'rule' and *ār* 'praise' have only forms of the present tense, and *ah* 'say' only those of the Perfect; *u* 'proclaim' has to its credit a single occurrence of *uve* and another single occurrence of *unoti* (both doubtful cases) and nothing more; similarly *daṇ* 'straighten' is represented by *dáṇ* and *dáṇas* only (another pair of doubtful forms), while the root *bhrī* (consume) has the sole *bhrīṇánti,* in a single occurrence, to justify it.

Perhaps it might be argued that though the roots cited above are properly represented, none of them is without at least one verbal form; whereas the unattested roots in the dhātupāṭhas under consideration are all devoid of any verbal forms, and are assumed solely on the basis of derivative nouns in each case. To this it may be pointed out that the grammarians, from whose stand-point we must judge their works in the first line, did not look upon verbal forms as *sine qua non* of a root. We have already seen, from the remarks of Patañjali and other grammarians cited above in this chapter, that certain roots were posited to account for certain derivatives only. Secondly even modern savants like BR and Whitney have

not considered verbal forms essential for assumption of roots but have regarded certain roots as 'inferable' solely on the basis of derivatives. There are more than two dozen of such cases in the *'Roots'* (some already proposed by BR) like *iḍ, kru* 'be rough or raw', *ṭup* 'swell', *tuc* 'impel', *dū, nīḍ* 'nest', *nṛ* 'sport', *pṛt* 'fight', etc. Some of these roots are supported by only two derivatives in each case like *iḍ* (*íḍ* and *íḍā*), *pṛt* (*pṕṛt* and *pṕṛtanā*) and *nīḍ* (*nīḍá* and *nîḍí*); and *raph* is based on the sole form *raphitá*. And it cannot be said that the positing of a root *kāñc* on the basis of the nouns *kāñcī* and *kāñcana*, or of a root *kṣīb* on the basis of the nouns *kṣíba* and *kṣíban*, as the grammarians have done, is more irregular than the setting up of roots *iḍ* or *pṛt* by modern scholars as seen above.

Theoretically, then, neither the non-appearance in the existing literature nor the want of productivity is a sufficient reason for regarding a root as fictitious. In practice, however, one can demarcate, tolerably clearly, two broad groups of attested and productive roots on the one hand and unattested and unproductive ones on the other. But this mere classification is not sufficient; and, further, no purpose is served by simply calling the latter class of roots as 'fictitious' or 'product of scholastic inventiveness'. Each single one of these roots has to be taken up and judged on its own merits. Thus only by a systematic study of each root in its various aspects can we form our judgment on the value of that root, and, what is important, on the possible reasons that might have been responsible for the assumption of that root. It is not possible within the limits of this work to go into all the details of the question. Only broad tendencies which were possibly behind the setting up of these roots are therefore indicated below.

The most prominent factor in posing the roots has been, of course, supplying verbal bases to the nouns which were believed, rightly or wrongly, to be derived from them. Consider the following cases:

√*liś* '*alpībhāve* (be little or small)' : *leśa* 'particle, a small portion'; prob. *leṣṭu* 'clod'.

√*lāj* '*bharjane* (fry)': *lāja, lājā* 'fried grain'.

√*caṇḍ* '*kope* (be angry; be passionate)': *caṇḍa* 'fierce, angry'; *Caṇḍī* 'Name of a goddess:'

√*kumb* '*ācchādane* (screen, cover)' : *kumba* 'a kind of head-dress for women'; *kumbā* 'hedge; fence.'

√*al* '*bhūṣaṇa-paryāpti-vāraṇeṣu* (adorn: be able or sufficient; ward off)': *alam-√kṛ* 'adorn'. *alam* 'sufficient(ly); able'.

√*kīl* '*bandhane* (tie, nail)' : *kīlita* 'nailed, impaled.'

√*kūl* '*āvaraṇe* (obstruct, hem; dam)'; *kūla* 'bank, shore, slope'.

These roots have no attested verbal forms and no other derivatives than those cited above, which are generally not more than two in each case. If we compare the meanings assigned to these roots and the corresponding nouns (as known from the literature), we can assume, a priory, that the roots were set up on the basis of, and in order to explain, these derivatives. (Incidentally, the form *kīlita* is evidently to be explained as made from a denominative (*kīlayati* or *kīlati*).

There is another class of roots which were set up, again as shown by the meaning, for explaining certain derivatives but which latter can be better accounted for, with a more thorough analysis, by referring them to better attested roots. Consider the following cases:

√*pīv* '*sthaulye* (swell, be fat)': *pīva, pīvan, pīvāṁs, pīvara, pīvas* all meaning 'fat.' All the derivatives can be derived from √*pī* 'id' from which we have verbal forms in the Veda. But √*pī* (in this sense) is not recognized by the grammarians, the common form *pīna* 'fat' being referred by them to √*pyāy* (P. 6, 1, 28). It is easy to see how, what with the rarity of forms with *pī-* in the later language and what with the plurality of forms showing the element *pīv-*, the latter gave the impression of being an independent root.

√*taṅk* '*kṛcchrajīvane* (live with difficulty or in distress)': *ātaṅka* 'sickness; pain; fear.' The derivative can be referred to *ā-*√*tañc* literally meaning 'coagulate'.

√*vaṅk* '*kauṭilye* (be crooked)': *vaṅku* 'going crookedly; *váṅkri* 'rib'; *vaṅka* 'vagabond'; *vakrá* 'crooked' etc. All the forms are such as can be derived regularly from the common root *vañc* 'id'.

√*ind* '*paramaiśvarye* (be the highest ruler): *Indra* 'Name of a god'. The word is probably to be derived, according to BR, from √*in* 'subdue' with the affix *ra* with a gliding element *-d-* (cf. sundara from *sūnara*). This etymology, however, is not accepted by al. (Cf. also the opinion of Kāśyapa on this root cited above).

√*puṇ* '*karmaṇi śubhe* (perform an auspicious or pious act)': *puṇya* 'religious merit': (prob.) *nipuṇa* 'clever, skilful.' It is quite probable that the derivatives are formed from the Pres. stem of √*pū punāti* 'purify; cleanse' (Cf. the proper names *kim-puna* and *kulam-puna*) with the cerebralization by Prakritism.[31]

31. For the change in the meaning of the word *nipuṇa*, cf. the parallel case of the word *kuśala* which originally meant 'good, right, or proper' and then also came to mean 'clever, adroit'.

There is, again, a class of roots which have derivatives, but the meaning assigned to these roots does not agree with that of the derivatives as known from the literature. Thus:

√*kharv* '*darpe* (be haughty)': *kharva* 'mutilated; dwarfish'.

√*nīv* '*sthaulye* (swell; be fat)': *nīva* 'a species of tree'; *nīvī* 'a kind of skirt; the knot of the lower garment.'

√*abhr* '*gatau* (go)': *abhrá* 'cloud'.

√*caṇ* '*dāne* (give)': 1 *caṇa* 'famous for'; 2 *caṇa, caṇaka* 'chick-pea'.

√*śaṇ* '*dāne* (give)': *śaṇá* 'a kind of hemp.'

√*gud* '*krīḍāyām*[32] (sport)': *gudá* 'anus'.

The disparity as regards the meaning between thee roots and the corresponding derivatives which were evidently intended to be connected with them is evident. But it is not difficult to see how these meanings came to be associated with these roots. In all the above cases the roots are read in groups, and the meaning, which is meant to be common to the whole group, applies at least to some other root (attested or otherwise) in the group which must have been prominent before the eyes of whosoever assigned the meaning. Thus *garve* owes its origin to √*garv, sthaulye* to √*pīv, dāne* to √*śraṇ*, and *gatau* to √*car*.

But there is also another class of roots which are not read in groups but in singles (i.e. each dhātusūtra consists of a single root) and consequently the meaning assigned was undoubtedly meant to refer to these roots; still the meaning does not tally with the corresponding derivatives. Thus:

√*paṇḍ* '*gatau* (go)', *paṇḍa* 'eunuch'; *paṇḍita* 'learned' (*paṇḍā* 'learning' is only lexicographic).

√*ślok* '*saṁghāte* (heap, accumulate)': *śloka* 'sound; call; fame; a particular kind of stanza' (probably connected with √*śru* 'hear').

√*khaṭ* '*kāṅkṣāyām* (desire)' *khaṭa* 'blind well'; *khaṭaka* 'chalk', *khaṭinī* 'id'.

śībh 'katthane (boast)': *śībham* 'quickly'; *śībhya* 'moving quickly'; *śībhara* 'charming.'

√*vith -veth* '*yācane* (beg)': *vithurá*[33] 'tottering'.

32. According to some authorities, *guda* is not a root, but a part of the meaning: *gudakrīḍā* (going with the preceding roots).

33. Evidently connected with √*vyath* 'shake, tremble'.

We know that Pāṇini read only roots and that the arthapāṭha was added later on by others. So in the case of this category of roots as also of the preceding one we do not know what forms exactly had influenced the assuming of these roots on the part of Pāṇini (or his predecessors) or the assignment of meanings on the part of his successors.

Whether the connection of the meaning be clear or not, it should be obvious from the study of the varios types of cases discussed above that the roots concerned were set up even on the strength of solitary (and occasionally even doubtful) derivatives. This almost amounts to subscribing to the Nairukta doctrine of the verbal origination of nouns and its rigorous application in each case. Now this is somewhat strange for, whatever the opinion of the grammarians led by Śākaṭāyana, that view was never accepted by Pāṇini and those who came after him as is clear from the separate treatment of the irregularly formed words in the Uṇādi rules. It would appear that the school of Nairuktas, which came in the field earlier than the grammarians, had, in accordance with their doctrine, drawn exhaustive lists of what they believed to be roots and that these lists were handed down from generation to generation and thus came in the hands of Pāṇini and other grammarians who retained them as being sanctioned by tradition.

Apart from this motive of supplying verbal bases to nouns, there still remains a large number of roots which were for long regarded as unaccountable. But KATRE in his *Historical Linguistics in Indo-Aryan* (pp. 66-74) has attacked this problem from a new angle. He has shown that a large section of these unaccountable roots reflect the tendencies of the Middle Indo-Aryan at work. Already even in the better attested and common roots of the Sanskrit we find roots which can be regarded as transformed bases of earlier forms under the influence of the MIA processes. Thus roots like *naṭ, bhaṭ, bhaṇ, kṣviḍ, ḍī are* cases of cerebralization (with or without a cause viz. loss of *r*) and *ujjh, katth, kuṭṭ, ghaṭṭ* of assimilation. It is no wonder, therefore, if the unattested roots also exhibited these tendencies. I give below instances of some of the more important types of Prākritization in the obscure (i.e. unattested and unproductive) roots.

Reduction of the initial consonant cluster :—

jut, yut 'bhāsane', jotate, yotate: *dyut, jyut* (this latter itself a case of prakritization), 'shine', *dyótate, jyótati.*

kand 'āhvāne rodane ca', kandati: *krand* 'cry out', *krandati.*

vaj 'gatau', vajati: *vraj* 'go', *vrájati.*

tāy 'saṁtāna-pālanayoḥ', tāyate (cf. Amg. *tāyai*): *trai* 'rescue', *trāyate.* In connection with the meaning *saṁtāna, tāy* seems to be connected with *tan; tā* and is attested.

tuṭ 'kalahakarmaṇi', tuṭati; tuḍ, 'toḍane': *truṭ* 'come to pieces, *truṭati.*

tim 'ārdrībhāve', timiyti: stim 'be stiff'. *timyati* in the sense 'becomes wet' occurs in the Mṛcchakaṭika V. 10.[34] Cf. also Mar. *themb* 'drop'. The loss of the initial *s* is seen in the attested roots like *paś, khid, tan* 'thunder', etc.

The softening of the intervocalic consonant is a peculiar feature of the MIA. We have already seen one instance of this in the above group, viz., *truṭ* : *tuḍ*. Here are some more instances :

vaṇḍ 'vibhājane', vaṇḍayati, vaṇḍate : *vaṇṭ* 'divide, share', *vaṇṭayati* (Dh. also *vaṇṭati*).

sphuḍ 'varaṇe' sphuḍati : *sphuṭ* 'burst open', *sphuṭati.*

śiṅgh 'āghrāṇe', śiṅghati : <**śṛṅkhati*, cf. *śṛṅkhāṇikā* 'mucus in the nose'.

In the unattested roots themselves there are pairs of roots which show this variation; thus *aṅk* : *aṅg 'lakṣaṇe, pade' tik* : *tig 'gatau', śraṅk-ślaṅk* : *śraṅg-ślaṅg 'gatau', tuph* : *tubh 'hiṁsāyām'*, etc. There are no attested roots in OIA with which these could be connected.

Cerebralization of a dental, either owing to a loss of a preceding *ṛ* or *r*, or without any apparent cause, so common in the MIA, is seen in the following cases :

paṭ 'gatau', paṭati : *pat* 'fly; fall' *pátati.*

puṇ 'karmaṇi śubhe', puṇati (cf. Amg. *puṇaï*) : *pū* 'purify', *punâti.*

muṇ 'pratijñāne', muṇati : *mnā, man* 'utter, quote, declare', (Cf. Pāli *munāti* and Amg. *muṇaï*).

aṇ 'prāṇane' aṇyate : *an* 'breath', *ániti, ánati, anáti.*

kīṭ 'varṇe' kīṭayati : *kīṛt* (=*kirt*) declare, narrate', *kīrtayati.*

śiṭ siṭ 'anādare', śeṭati, seṭati: śaṭ 'viśarane' śaṭati: saṭ 'avayave' saṭati : *śīrta* 'fragile, destructible', *śūrtá* 'scattered' < *śṝ* 'crush; decay'.

vaṭ 'veṣṭane', vaṭati : *vṛtá* 'surrounded' <*vṛ* 'surround'.

bhaṭ 'bhṛtau', bhatati: bhṛta 'hired, paid (as a servant)' <*bhṛ* 'bear'.

muṭ 'mardane', moṭati; 'ākṣepe' muṭati; 'saṁcūrṇane', moṭayati : *mṛtá* 'dead' < *mṛ* 'die'.

yauṭ 'bandhe' or *'saṁbandhe', yauṭati* : *yauti* 'unites', *yautaka* 'private (esp. a bride's) property', *yautra* 'tie, rope'.

34. *yathā yathā varṣati abhrakhaṇḍaṁ*
tathā tathā timyati pṛṣṭhacarma
This is the Skt. chāyā; in the original Prākrit we have *timmadi.*

In the above cases, the roots like *śaṭ, muṭ, bhaṭ* presuppose forms like **śṛtati, *mṛtati, *bhṛtati* which could be theoretically explained as either being denominatives formed on the past participles or extensions in *-t* (*śṛ-t-áti*, etc.). The treatment of *ṛ* (> *a, i* or *u*) is also incidentally illustrated above. Some other cases showing the treatment of *ṛ* are :

ghaṁṣ, ghaṁs, ghiṁṣ, ghiṁs 'kāntikaraṇe' : *ghaṁṣ* (°*s*) *ate, ghiṁṣ* (°*s*) *-ate* : *ghṛṣṭa* 'polished', *ghṛṣva* 'lively' < *ghṛṣ* 'polish, rub' *gharṣate.*

ghiṇṇ, ghuṇṇ, ghṛṇṇ 'grahaṇe' : *ghiṇṇate, ghuṇṇate, ghṛṇṇate.* As KATRE[35] has happily explained, *ghṛṇṇ* which corresponds to Epic *gṛhṇati* and Upaniṣadic *gṛhṇate* is primarily a MIA base with the shift of the aspirate, *gṛhṇ-* > *ghṛṇṇ*, with the further change of *ṛ* into *i* and *u*.

viṣ 'secane' veṣati : *vṛṣ* 'shower'.

The *ṣ* > *s* change is seen in *pes 'gatau'* : *preṣ* (*pra* + √*eṣ*) 'drive, send', in *ghaṁs, ghiṁs* (already cited above) etc. Similarly assimilation is to be properly seen in roots like *cakk cikk phakk ṣvakk svakk, picc, aṭṭ khaṭṭ cuṭṭ puṭṭ saṭṭ suṭṭ, aḍḍ kaḍḍ cuḍḍ tuḍḍ, hamm, cull cell bhall mall vall,* etc., though the connections of many of these are far from clear. It is not intended to exhaust all possibilities of Prakritization here, but only to illustrate few imporatnt types. Future research in this line is bound to throw light on many other roots.

A part of the obscure roots, then, can be explained as formed under the influence of the MIA tendencies. But the question why they should have found a place in the root-lists of Sanskrit language remains still unanswered for, as is well known, there is nothing corresponding to these in the known Sanskrit literature. We have therefore to fall back upon the hypothesis of the lost literature or the spoken dialects being the basis of these dhātup. formations. An important point to be remembered in this connection is that the object of the grammarians was to record the usages of the standard or 'correct' language and thus to arrest its 'corruption'.[36] And Kātyāyana in his Vārttika 12 to P. 1, 3, 1 expressly says that the listing of the roots has for its object the exclusion of the (corrupt) forms like *āṇapayati, vaṭṭati, vaḍḍhati*[37] etc. In the face of this express aim of the

35. *Historical Linguistics*, p. 68.

36. *anuśiṣyante'sādhuśabdebhyo vivicya jñāpyante'neneti (anuśāsanam) .... anenaiva apabhraṁśānām aviṣayatvam sūcitam*, Uddyota, p. 8 (NS ed.).

37. Corresponding to Skt. *ājñāpayati, vartate, vardhate* respectively.

dhātup. it is not a little strange that such a large number of the cases of Prākritism should be actually found in all the dhātupāṭhas, not excluding even the oldest one. It is possible that these usages first arose in those dialects which had not come under the influence of the grammar from which they spread to the spoken language of the cultivated people, thus necessitating recognition in the dhātupāṭhas. But in the absence of definite facts to go on, mere speculation will be of no use.

Besides lack of attestation and unproductiveness, another reason adduced to prove the fictitiousness of these roots is their particular relationship with the so-called authenticated roots. It is claimed that whatever the motive of their creation, they seem to have been modelled, both in form and in meaning, on the 'true' radicals; that there is no limit to their creation on definite scale; in fact these roots can be arranged in parallel forms, containing each from two or three up to twenty or even more bases: e.g., *khurd gurd* (based on *kurd* 'play'), *kev khev gev glev pev mlev mev,* etc., (on *sev* 'serve; resort'), *vay pay cay tay* (on *ay* 'go'), *pel phel śel sel vel* (on *khel* 'stagger'), etc. But the mere fact that these formations seem to run to pattern is no reason why they should be regarded as artificial. For, as KATRE has pointed out, rime word-building has been one of the most potent forces in linguistic creations in all languages. Even the ordinary words in English like *spot dot blot, tender slender, hurry flurry scurry, garnish varnish tarnish,* which resemble one another both in sound and sense, or those like *humble mumble fumble grumble tumble stumble,* etc., which agree in sound but not all in meaning make it sufficiently clear how powerful and inherent is the tendency of creating ryming words in any language. Even in the so-called authenticated roots of the Sanskrit this tendency can be clearly detected, as e.g., in *ghas gras bhas* 'eat', *tras bhyas* 'fear', *carv bharv* 'devour', *skabh stabh* 'prop', *tud nud* 'push, thrust', *chid bhid* 'cut', *gad vad* 'speak', *mand nand* 'be merry', etc. There is no wonder, then, if this tendency is met with in the unattested roots.

It is but natural that this rhyming tendency should find a prolific field in the two groups of verbs meaning 'go' and 'sound' for there are myriad varieties of movements and degrees of sound. We have already seen that though generally meanings have been stated in general terms like '*gatau*' and '*sabde*', commentators have often brought out the specific shade of meaning. Let us take here an instance not discussed previously. Under the meaning '*hasane* (laugh)' we have the following roots: *kakh kakkh khakkh kharkh gagh gaggh* and *ghaggh* whose forms would be *kakhati kakkhati khakkhati kharkhati gaghati gagghati* and *ghagghati*. These must be clearly onomatopoetic formations imitating the sounds of the various types of laughters like chuckling, cackling, giggling, tittering, sniggering and so

on.[38] Spoken dialects are often rich in such expressions which do not always find their way into the literary languages. Under cases of Prākritism we have already come across a group of roots *ghaṁṣ ghaṁs ghiṁṣ ghuṁṣ*[39] (*'kāntīkaraṇe'*) which LIEBIECH takes as a verb which was current in different forms and apparently belonged to the slang of the lower classes ('ein Verb, das in mehreren Formen .... kursierte, ein Wort anscheinend der niederen Umgangssprache'). There is another group of roots *carc jarc jharc, charch jharch, jarj, jarjh jharjh,* and *jarts* (actually each dhātup. gives only three)[40] in the meaning 'rebuke, chide, take to task, etc.' which would give the forms *carcati jarcati,* etc. Though the dhātup. does not associate these roots with the attested *tarj* and *bharts,* they are evidently akin both in sound and sense and might be their dialectical variations.[41] We have, therefore, always to bear in mind the possibility of at least a section of the unattested roots being based on dialectal usages which might not have found their way into the literary language.

These are, then, the ways in which we can explain the various types of the so far unattested and unproductive roots of the dhātupāṭhas. By a thorough application of these and similar methods it will be possible to explain a large part of the so far unaccountable roots of the dhāupāṭhas.[42] Whether that will justify the setting up of these roots is a different thing. In fact our objective should not be so much to justify or condemn this or that thing, as to try to understand and explain how the things arose. Should we then still persist in calling these roots as 'fictitious,' 'artificial', 'figments of imagination' or 'products of scholastic inventiveness'? After what has gone before I think we could hardly do so. Besides, the terms like 'fictitious' or 'figments' create the impression that the other type of roots, i.e. the attesed and producive ones, are something having a real and positive exist-

38. With *kakkhati* and *khakkhati* cf. the Mar. expressions *'khe-khe* (or *kho-kho*) *karūn hasṇē'* and *'khad-khadūn hasṇē'*. *kharkhati* would correspond to a harsh or shrill laughter, while *gagghati* and *ghagghati* should suggest a full-throated, rich and sonorous sound of a hearty laughter.

39. Also *gaṣ* and *ghas* are occasionally met with in this sense.

40. On the bewildering variety of the form of this root Kṣ (p. 57) remarks: *kim atra satyaṁ, devā jñāsyanti!* — LIEBICH (foot-note) observes: der Stellung im Dh. nach zu schliessen ist jarts die älteste Form, die später durch verschiedene prakritische Um— und Neubildungen ersetzt worden ist.

41. I have a hunch that there is a peculiar sound-symbolism involved in these words (apparently slangs) which express the idea of rebuking through echoing the sound of shaving. In many languages expressions are met with which while meaning (primarily or secondarily) 'to shave' are also coloquially used in the meaning 'condemn, repremand, take to task' etc. Cf. Mar. *kharaḍ-ṇē* or *kharaḍ-paṭṭī kāḍh-ṇē* and *tās-ṇē* (Skt. √*takṣ*), Fr. *laver la tête* etc.

42. It is, of course, still possible that some roots will still remain unaccountable.

ence, which is far from true. Even the best attested and most productive roots like *gam*, *kṛ* or *bhū* are equally as 'fictitious' and 'products of scholastic inventiveness' as, say, a root like *al*, for the simple reason that they just do not independently exist in the language like concrete things. And ancient Hidu grammarians were certainly never under such an illusion as many of the philologists of the last century were, who believed that there was a period like 'Root-period' or the Isolating stage wherein the 'roots' alone existed, as independent words, and that this stage gradually passed into the Agglutinating and then into the Inflecting stage. The grammarians were fully conscious that the roots were merely abstractions. Secondly, by restricting the productivity of many of these roots to specific forms, and in general bringing these roots under the purview of the dictum of *niyata-viṣayatva* they made it clear that the roots of the dhātupāṭhas were meant to be theoretical bases set up to explain the actually existing words only, without regarding each of them as capable of producing all sorts of theoretically possible forms. In view of this these roots should simply be called as unattested and unproductive roots, which describes them best; or, if at all a label is necessary, they should be called 'obscure', never 'fictitious'.

CHAPTER IX

VARIATIONS IN ROOTS

IX

VARIATIONS IN ROOTS

Prāyeṇa dhātuvaiṣamyāt sarveṣāṁ ghūrṇate śiraḥ/[1]

In the last two chapters we had confined our study of the roots to those aspects which are common to all the dhātupāṭhas. We shall now take up the remaining part of the study, viz. the variations in roots in the different dhātupāṭhas like omissions, additions and other kinds of differences. There is no end of these different kinds of variations which have evoked the punning remark from Rāmānātha, the commentator of the Kt. Dh., given at the top. And Kṣ. also similarly remarks that the Kṣīrataraṅgiṇī will serve as a sort of *vāṅmaya* tonic by curing the *dhātu-vaiṣamya.*[2]

As we did in the case of the variations concerning the meanings, here also we start with the least important type, viz., the one caused by orthographic confusion.

च (c) : ब (b) - 1 *cund* (*'niśāmane'*) C Kk Kt : *bund* P J Śā H V.
2 *bed* (*'niśāmane'*) Kṣ : *ced* H
3 *buḍ* (*'saṁvarṇe'*) M Kk Kt Śā H: *cuḍ* S
4 *bul* (*'nimajjane'*) Kṣ Kk Kt Śā H V : *cul* (*samucchrāye* M S) Śa C.
5 *bal* (*'bhṛtau'*) M Kk Kt : *cal* Kṣ S H V.

In the fourth case we can definitely say that *'bul'* is the genuine reading as is shown by the meaning *nimajjane* 'sink, submerge.' In the 3rd case, the majority supports *buḍ.* In the 1st, *bund* seems to be the older one. In the remaining two cases the evidence is equal on both sides.

Like ब (b), व (v) also is confused with च (c). Thus: *khav* (*'bhūtaprādurbhāve'*) Kṣ Śa C Kk Kt Śā H V (also cited by M S) : *khac* M S J V (also cited by Kṣ H).

च (c) : ज (j) - *sajj* (*'gatau'*) P C Kt H V : *sañc* J : *sañc* V (cited by Kṣ S H).

1. Rāmanātha's Manoramā (comm. to the Kt. Dh.), introductory st. No. 2. The second line runs thus:
yā tatkriyāyai prabhavet saiva vṛttir manoramā /
2. *dhātuvaiṣamyaśamanād vāṅmayāpyāyanī satām /*
Kṣīrasvāmiprasūteyaṁ vṛttiḥ kṣīrataraṅgiṇī //
introductory st. No. 2.

1 *vic* (*'pṛthagbhāve'*) cited by Kṣ S H: *vij* all (V reading both) *vyac* (*'vyājīkaraṇe'*) all ex. Śa Kṣ: *vyaj* Śa: *vyaca saṁbhave... vyaja vyājīkaraṇe.* Kṣ.

व (*v*): ध (*dh*)—For *dhraj* and *dhrañj* (*'gatau'*), S reports as v.l. *vraj* and *vrañj* respectively. (*vrañj* is found in J and in some Mss. of Kṣ also, vide p. 23).

व (*v*) : ब (*b*)—The confusion between *v* and *b* is well known. It will be seen that out of 111 roots beginning with *b*, 38 are read in one or more dhātupāṭhas with an initial *v*. A similar study of roots beginning with *v* shows that in the case of doubt or difference of opinion M J Kt tend to write *v* while Kṣ Śa Śā Kk show a predilection for *b*, and HV usually state both the forms.

व (*v*) : ब (*b*) : र (*r*)—M and S read *ruṅg* for *vuṅg-buṅg* (*'varjane'*) of others. Similarly Wg. reports a reading *rarph* for *varph — barph* (*gatyarthaḥ*) of others.

व (*v*) : ब (*b*) : त (*t*)—For *v* (*b*) *uṅg* mentioned above, Kk reads *tuṅg*. He similarly reads *tṛṇ* for *vṛṇ* (itself a v.l. for *pṛṇ* *'prīṇane'*) of others.

प (*p*) : य (*y*)—All the dhātupāṭhas give *palyūla* instead of the correct *palpūla* which latter is found only in the Mysore Ed. of the Mādh. Dh. and is cited also by H.—Other instances are: J's *puṅg* for *yuṅg* (*'varjane'*); M's *yay* for *pay* (*'gatau'*); *puch* for *yuch* (*'pramāde'*), *lyī* for *lpī* (*śleṣaṇe'*), and *yunth* for *punth* (*hiṁsā-saṁkleśayoḥ*), all cited by Wg.; *peṣ*, given wrongfully for *yeṣ* (*'prayatne'*) by Wg. (and B).

प (*p*) : म (*m*)—2 *muṇḍ* (*'pramardaṇe'*) Kṣ M V (cited by S): 1 *muḍ* (cited by S): 1 *puṇḍ* J Śā H V (cited by Kṣ —S): *puḍ* (cited by S).

3 *muṇḍ* (*'khaṇḍane'*) all (Śā om.): 2 *puṇḍ* cited by MS.

spṛ (*prīti-balanayoḥ*) M S C J Śā V (cited by Kṣ- H): 4 *smṛ* Kṣ Śā Kk Kt H V (cited by M S). It is difficult to decide, solely on the basis of the dhātupāṭhas, which one is the original. The evidence of the independent literature is in favour of *spṛ*.

Lastly, besides the usual *mas* (*'parimāṇe'*), C gives *pas* also.

प (*p*) : व (*v*) — *parṣ* (*'snehane'*) Kṣ M Kk Kt H V: *varṣ* M—(also) S J Śā.

C is alone in reading *sparṣ* for *p* (*v*) *arṣ*. M reads both side by side which shows that either he was not sure as to which

was genuine, or that in the version which he followed the two were regarded as two independent and both genuine roots.

vṛṇ (*'prīṇane'*) S : *pṛṇ* all others.

pil (*'kṣepe'*) Kṣ M Kk Kt Śā H V : *vil* S Śa J Kk (also). Kk reads reads both side by side (like M in the case of *parṣ-varṣ* above). Besides the two, a third, viz. *kil* is also read by Kṣ Kt Śā H and cited by S which seems to be an independent root.

svṝ (*'hiṁsāyām'*) M V : *spṝ* S.

म (*m*) : स (*s*) — For *mas* (*'parimāṇe'*), S cites a reading *sam* (for which we have also a *pas* as seen above, and a *bas*).

mṝ (*'hiṁsāyām'*) P Śa (?) C J Śā H V: *sṝ* Kk Kt.

ड (*ḍ*) : ह (*h*) — *ah* (*'udyame'*) *P* : *aḍ* H V.

झ (*jh*) : क (*k*) — *kaṣ* (*'ādāna-saṁvaraṇayoḥ'*) Kk Kt : *jhaṣ* others.

kṝ (*'vayohānau'*) Kk : *jhṝ* others.

क्क (*kk*) : ष्क (*ṣk*) — *ṣvaṣk* (*'gatyarthaḥ'*) S Kk Kt Śā H V: *ṣvakk* Kṣ M Śā. For *ṣvaṣk* (kk), C J read *ṣvask*. Kk. seems to be particularly affected by this confusion. In the first class, along with *bukk* (*'bhāṣane'*), he reads *buṣk* also; and in the tenth class, along with *hiṣk* (*'hiṁsāyām'*), he reads *hikk* also. On the other hand, he reads *hiṣk* (*'gatau'*) for *hikk* (*'avyakte śabde'*) of others. Wg. reports a reading *vakk* for *vaṣk* (or *vask*) *'gatyarthaḥ'* of others.

र (*r*) : न (*n*) — There are about a dozen roots ending in *-rb* (*arb, karb, kharb,* etc.) which Kauśika is said to have read as ending in *-nb* (= *mb; amb, kamb, khamb,* etc.). This is also probably to be explained as being due to orthographical confusion since in the Śāradā script *r* and *n* when leading a consonantal cluster look very much alike.

Metathesis

Certain variants in roots are simply due to metathesis of letters. Thus for *śav* (*'gatau'*), C reads *vaś;* and for *jal* (*'apavāraṇe'*), Kṣ S H report a reading *laj* (also read by V). The variant *sam* for *mas* mentioned above would come also under this head. Here again Kk. dhātup. is affected more than any other. Thus Kk reads *ṭīk* for *kīṭ* (*'bandhane'*), *khal* for *likh* (*'akṣara-vinyāse'*), *kaṣṭa* (=*stak*) (*'pratighāte'*), *car* for *rac* (*'pratiyatne'*) and *cir* for *ric* (*'viyojana-saṁparcanayoḥ'*).

Variants due to misunderstanding or confusion

After the variations caused by the orthographic confusion, are now to be studied the variations which owe their origin to a confusion in under-

standing. There are all sorts of misunderstanding. It is true the instances are not here so numerous as in the preceding category, yet their variety is by no means limited. Roots have been turned into meanings and meanings into roots: what were really anubandhas have been misunderstood as parts of roots and genuine parts of roots misunderstood for anubandhas, and, lastly, there is at least one case each of conjunctions like *ca* and *vā* having been mistaken for parts of roots; of a root maimed into two, of an artificial amalgamation of two different roots and of a finite form wrongly looked upon as a root.

As is well known, individual words are rarely, if at all, written separately in the Sanskrit Mss. Only the conclusion of a sentence is marked by a *daṇḍa* while all the words in a sentence are simply written in close contact with one another. This sort of writing naturally sometimes tends to give rise to a doubt or misunderstanding as to the exact splitting of the sentence into its component words and is responsible for the various types of misunderstanding mentioned above. Below are some instances.

Parts of meanings mistaken for roots:

vyaya vittasamutsarge ('spend money'). On this H remarks: *vitta iti dhātvantaram ity eke,* i.e., some people had looked upon this dhātusūtra as reading two roots, *vyaya* and *vitta* in the sense of *samutsarga* 'give, expend' in general. By *eke* H evidently refers to authors like Kṣ. although this latter reads *vyaya gatau* and *vitta samutsarge*. Kṣ also knew the other view which he ascribes to the Sabhyas (*'vyaya vittasamutsarga iti sabhyāḥ'*). Lastly V gives *vitta* in the sense of *tyāga,* and *vyaya* in both *gati* and *tyāga.*

tantr kuṭumbadhāraṇe ('maintain family'). All the three commentators of the P. Dh. (also Bhaṭṭoji) and H remark that Cāndras regard *kuṭumba* as a separate root. (LIEBICH'S ed. of C. Dh. however does not agree.) Kṣ H further remark that in the meaning *kuṭumbadhāraṇa,* the word *kuṭumba* is just by way of *upalakṣaṇa,* so that *dhāraṇa* in general is what is really meant. Accordingly V reads *tantr dhāraṇe* and *kuṭumb dhṛtyām.*

vela kālopadeśe ('record or announce time'). H however reads *vela kāla upadeśe,* treating *kāla* as a separate root, and making *upadeśa* in general the meaning; he however mentions the other view also: *kālopadeśe ity arthanirdeśa ity eke.* On the other hand MS, who follow the current view, mention the other view also: *kāla ity api dhātur ity eke* (*ity Ātreyaḥ* - S).

V, as usual, states both the views : *kāla kālopadeśe* and *vela kālārthe*. It will be seen that even while giving *kāla* as a separate root, he gives *kālopadeśa*, and not mere *upadeśa* as the meaning. This shows that even V did not really accept the splitting of expression and making a new root out of it.

There is an interesting case of a meaning being misunderstood for the root in two apparently unconnected *dhātupāṭhas*. The sūtra *śaṭa rujā-viśaraṇa-gatyavasādaneṣu* is misunderstood in the Śa. Dh. (I, 173-174) where *rujā* is treated as though it were a root, and *viśaraṇa* etc. as definition common to both. Kk dhātup. goes one worse. There *rujā* is first misread as *ruṭa* and the definition *viśaraṇa* etc. is made to go with this so-called root alone while for √*śaṭ* a new meaning *nivāsa* is invented which is unheard of anywhere else in connection with this root.

dīkṣa mauṇḍyejyopanayana-niyama-vratā-deśeṣu. On this Kṣ remarks: *anye dīkṣa mauṇḍye, jyo upanayanādau cety āhuḥ*. Here it seems that somebody made the mistake of taking *mauṇḍye* as the meaning, being deceived by its form which looks like the locative of *mauṇḍya*, and since there remained no root which could be said to be defined by the remaining portion of the definition, he extracted *jyo* from it and turned it into a root! It did not bother him how a root in vowel could be read in the midst of those in consonants (*ūṣmans* in the particular case).

Vop. of course states both the views. Thus he says: *jyo-ña niyama-vratādeśopanītiṣu* and *ṇ-dīkṣa mauṇḍyejyājyo'rthe*. (Here the economy achieved by Vop. is worth noting).

Now we see the opposite type of cases, viz. roots erroneously turned into meanings.

In the first class, there is a group of roots against the meaning of *krīḍāyām eva*). In this group a root *gud* is read in some dhātupāṭhas. (It is not found in Śa C Kk Kt.). S, however, reads the dhātusūtra in such a way as to make *guda* a part of meaning : *kurd khurd gurd gudakrīḍāyām eva*[3] and cites the authority of Caraka as having explained *gudakrīḍā* by *gudavihāra*. Kṣ, who, like the majority, reads *gud* as a root, attributes the other view to Upādhyāya and goes on to say that Sabhyas do not approve of it (*'Upādhyāyas tu gudakrīḍāyāṁ pāyuvihāra eva dvau dhātu iti vyākhyat; tan neti Sabhyāḥ'*). V, as usual tries to make accommodation for both the views. He gives *kŭrd* and *gūrd* with the meanings *gudakrīḍe* and *krīḍe*, but he had to give *gud* with *khelane* only.

3. As Liebich, *Einführung* III, p. 5, foot-note, has pointed out, the Ban. Ed. reads *guda krīḍāyām* separately which is a mistake.

kūrd has been attested in the independent literature in the meaning *'leap, jump'* etc. There is therefore no doubt whatsoever that *krīḍāyām* is the genuine meaning. The linking of *gud* (which root itself does not find place in a number of dhātupāṭhas)[4] with *krīḍāyām* must have been therefore due to a pure misunderstanding.

After the root *bleṣka* (the tenth class) (v. 1. *baṣka*) *'darśane'* there is a root which has come down in different forms in different dhātupāṭhas — *katth, kattha, katra, kadhra, kart, karta, .kartṛ* and *kartra* — with the meaning *ṣaithilye*. Kṣ reads the root as *kartṛ* and after having illustrated its forms he remarks thus: *kartur agāḍhatves' pi bleṣko vartata ity eke.* From this it appears that the *eke* referred to by Kṣ had read *kartṛśaithilye* as one word and had made it an additional meaning of the preceding root i.e., *bleṣka.*

What happened must have been something like this: Since the root concerned appears in the adanta section, *kartṛ* cannot have been the original form. It must therefore be a corruption from some other form like *karta* or *kartra.* Later on somebody saw that this form did not end in *·a.* He was therefore led to believe that this word was not a root but a part of the meaning and so he tagged it on to the following word, making *kartṛśaithilye* ('worker's negligence'?) as a grand meaning out of it, just as some other people tried to account for the ṛ by treating it as an anubandha and yet some others denouncing the root itself as spurious (*anārṣa*).[6]

In the tenth class there is a sūtra *basta gandha ardane* ('roots *bast* and *gandh* mean 'to harass') which appears in the Śa Dh. (X, 122) as *basta. dri. za. ba. lao.* This means that the Tibetan translator must have read the sūtra as *bast gandhādane* (*dri* = *gandha; za.ba* = *adana* 'eating'). Thus apart from misreading *ardana* as *adana,* this dhātup. also makes the mistake of treating *gandha* as a part of the meaning and of thus looking upon the expression *gandhādana* ('eat fragrant stuff- peck a frugal meal?) as a definition of *bast.*

It appears that the original dhātup. used by the translator had, unlike the other dhātupāṭhas, joined gandha and the following word in a *saṁdhi,* and had either dropped inadvertently the superior sign for *r* in *ardane,* or it escaped the attention of the translator.

4. Nor in the actual literature.

5. Elsewhere also Kṣ paraphrases *śaithilya* by *agāḍhatva,* cf. I, 35.

6. Cf. Kṣ under X, 367: *Candra ṛditaṁ manyate.....adantamadhye'nārso'yam ity eke—anārṣa* = not coming from the *ṛṣi* or the original author = spurious, unauthentic. For *ṛṣi* meaning an ancient authority (on grammar), cf. the expression *vyākaraṇasya trimuni* (or *dvimuni*), P. 2.1.19 Kāś.

There are one or two cases of a doubtful nature where it is not possible to decide one way or the other. Some read a sūtra as *chidra karṇa bhede* while others read it as *chidra karṇabhede*. Whereas *bheda* goes well with *chidra*, it does not agree with *karṇa;* on the other hand, if we take *karṇabhede* as one word, there is no reason why the meaning of *chidra* should thus be limited to 'perforating the ear' only. There is a variant *karaṇabhede* ('perforate with an instrument') mentioned by Kṣ S which solves the difficulty admirably but it is unfortunately very poorly attested and is either a corruption of *karṇabhede* or a deliberate emendation in order to tide over the difficulty. Another dubious case is that of the two sūtras *ghuṣ viśabdane* (v. l. *aviśabdane*) */āṅaḥ kranda sātatye*. Those who read the second sūtra in the form in which it is given here, interpret it to mean that *ā* √*krand* (ordinarily belonging to the first class) is conjugated according to the tenth class when the continuity of the action denoted by it (viz. 'crying out'—*āhvāna* and *rodana* taught in class I) is intended. Others make *krandasātatye* as one word, carry forward the root *ghuṣ* from the preceding sūtra and explain the second sūtra as meaning that in composition with the prefix *ā*, the root *ghuṣ* means 'to cry out continuously' (*krandasātatye*).

Miscellaneous cases:

tap aiśvarye vā/vṛt varaṇe (v. l. *vartane*). Instead of treating *vā* as an indeclinable (meaning 'optionally'), Kṣ C join it with the following word and make *vāvṛt* the root. This view is mentioned by others like M S H, and V gives, as usual, both the forms.

stigh āskandane / tik tig ca / sagh hiṁsāyām. On this Kṣ remarks: '*tika tiga caṣagha hiṁsāyam ity eke*'. This means that whereas *ca* was originally a conjunctive meant to connect *āskandane* with *tik tig*,[7] according to 'some' *ca* was a part of a root (*caṣagh*) (and consequently *tik tig* were now to be connected with *hiṁsāyām*).

Maimings and amalgamations of roots—

ṛkṣi - - hiṁsāyām. On this Kṣ H remark that some people split *ṛkṣi* into *ṛ* and *kṣi*, taking them as two roots ('*ṛkṣṇoti*[8]....*ṛṇoty eke*' Kṣ: *kecit tu ṛkṣiṁ chindanti*: *ṛṇoti*' H). M S read *ri* instead of *ṛ*.

ri pi gatau. This is read as *ripi gatau* in Kk Kt and illustrated as *ripati* (why not *rimpati*?) in Kk.

7. '*cakāreṇāskandana ity apekṣyate*' as M says.
8. According to some the correct form is *ṛkṣiṇoti;* still some others favour *ṛṅkṣṇoti*.

mīm-ṛ gatau. The word *mīm-ṛ* (√*mīm* with the anubandha *ṛ*) is misunderstood in the Kk dhātup. where it is split into two, *mī* and *mṛ* and illustrated as *mayati* and *marti!*

A root *udhras* is given in the ninth class with the meaning *uñche* and in the tenth class with the meaning *utkṣepe* (some reading *wñche* in both places). Of the word *udhras,* the first letter *u* is generally regarded as an anubandha and *dhras* the root. But the commentators tell us that some people had regarded the whole word *udhras* as the root. (*'uḥ prayogasamavāyīty eke'* Kṣ. *'ukāro dhātvavayava ity eke, nety anye'* S K). According to a third view *udhras* was really *uddhras* (i.e. *ud* √*dhras*). There is a similar confusion regarding *olaṇḍ* where some regard *o* as an anubandha, and others as a part of the root. (There is also a variant *ulaṇḍ* mentioned by S. and SK.)

P. Dh. II, 69 reads *ṣasa ṣasti svapne* where *sasti* is apparently a finite form (3 sing. Pres. ind.) of√*sas* read in this sūtra, though why a finite form should be mentioned in this single case in the whole range of the dhātupāṭha is a mystery. It was however misunderstood as a root (= *saṁst*[9]) and is given as such in some later dhātupāṭhas (*sast-u* Śā, *sast-uk* H, *ṣast-iłur* V). The other schools who do not read it, evidently do not regard it as a root and even Kṣ first reads only *ṣasti sasane* for the same.[10]

We now take up a more important type of variation, viz., additions of roots.

Additions

If we compare the dhātupāṭhas it will be seen that no two of them agree as regards the extent of their contents. Generally the later the work, the greater the number of roots it contains. It will be interesting to study the additions to the original stock by each succeeding school. Apart from throwing light on the alignments or affinities of the different schools it will also offer an excellent opportunity to study the motives for these additions and the policy of the grammarians as regards the admission of new roots.

It is the first or the *bhū-* class which shows the largest number of additions. I therefore give below all the important cases of additions in the first class. But before I actually do it, a few things have to be noted. Firstly, no root is here regarded as originally belonging to the P. Dh. unless it is independently attested as such by all three commentators of that dhātup.— excepting of course such cases where absence of a particular root in one

9. Illustrated with *santi* by some, with *saṁsti* by others!
10. *'ṣasa svapne....ṣasti sasana iti caike peṭhuḥ'.*

or the other version can be interpreted as a case of omission, accidental or deliberate. This precaution is necessary because the P. Dh. has become progressively more and more inflated under the influence of other schools. Secondly, the Śa. Dh. is here completely ignored for want of its exact date. (That it cannot be the original dhātup. of Śarvavarman as it is claimed, so much I have already shown in chapter II.) Thirdly, the additions shown here as first made by J and Kk have to be regarded as more or less provisional since, as hinted in chapter II, there is a possibility of J. Dh. having been revised at a subsequent stage and in the case of Kk its chronological position vis-à-vis Kt is far from fixed.

I now give all the important cases of additions of roots in the first class, both peculiar to a particular school, and also those shared (partly or wholly) by its successors :

Additions of C (28)

1. Peculiar to C (9): *keb*, 1 *guṇṭh*, *peb*, *mṛd*, *yudh*, *vlaṅg*, *śill*, *śrak* and *ślak*.
2. Shared (19): 1 *i* (with M S Kk Kt H V), *kumb* (with M S Kt H V), *gṛh* (with Kṣ M S H), 2 *ghuṣ* (with Kk), *jhyu* (with M), *tej* (with M S J), *traṅg* (with Kṣ M V), *parb* (with M S Kk Kt H V), 3 *mañc* (with J Śā H V), *meṭ* (with Kṣ M V), *rej* (with (Kṣ S V),[11] 2 *laṅgh* (with MJ Kk Kt H V), *śañc* (with Kṣ V,) *śnath* (with Kk Kt Śā H V), *ślāḍ* (with J), *sphaṭ* (with Kṣ S H V), 1 *sphuṇḍ* (with Kṣ S H V) and *heṭh* (p) (with Kṣ).

It is not possible to go into the details of each and every case noted above. So only a few cases illustrating the broad tendencies will be noticed here. *keb* '*gatau*' may be compared with *kep* '*kampane*' which latter is also given along with others. *mṛd* is given (along with *mrad* of others) evidently to account for forms like *mardati - te* which are an epic peculiarity. Similarly the object of reading *yudh* in the 1st class (along with that in the 4th class as in others) is evidently to justify forms like *yodhati* which are known to have survived only in the Av and the P Br. The case of *vlaṅg* is still more interesting. Only two forms, which might have been responsible for the posing of this root, have occurred (both with *abhi*), viz. *-vlágya* (only two occurrences) and *-vlaṅga*. It is remarkable that even these extremely rare cases should have been noted and thus accounted for.

Of the roots shared with others, the case of *i* is somewhat peculiar. Whereas Pāṇini reads it only in the second class, its reading in the first class

11. S regards √*rej* as *anārṣa*. See below under omissions.

also was necessary since forms like *ayati* are by no means rare from the Brāhmaṇa period onwards. This explains why the commentators of the P.Dh. had to resort to a *praśleṣa* of *i* (or *ī*) in *kaṭī* (P. Dh. I, 342), i.e. to separate it into *kaṭi* (*-kaṇṭ*) + *i* (or *ī*).[12] But why Candra should simply read the root *i* after *kaṭī* in the group of roots ending in cerebrals, and not at its proper place in the vocalic roots is not clear. And in this he is followed not only by Kk and Kt but also by M. This also shows that this root had already penetrated into Maitreya's version of the P.Dh., evidently via the Kt. Dh.[13]

Of the other roots first set up by C and similarly attested in the literature, mention may be made of *rej* and *śnath* (both of which have appeared, it is worth noting, only in the Vedic literature) and *sphaṭ* (found only in the classical literatue). The root 2 *ghuṣ* 'decorate' seems to be a prakṛtization of *ghṛṣ* 'rub, polish'.

The figures of additions shared by other schools are (in descending order) : V 12, M H each 9, Kṣ S each 8, Kk Kt each 5, J 4, and Śā 2. This shows that the earlier Jain works are less influenced in this matter by C than the later writers like H and V and the commentators of the P. Dh., while Kk Kt take a middle position.

Additions of J (47)

Peculiar to J (9) : 3*gal, call, deb, piñj, ruj, śinv, śek, sūrṣy, srut* (9).

Shared (38) with Kṣ M S Kk Kt Śā H V : *ambh* (ex. M); *khev*, 1 *caṇ, cucy, tik* (ex. Kṣ), *dhvaj, rambh* (ex. M), 1 *vall*, 1 *śuṭh, śraṇ* (10).

With Kk Kt Śā H V : *knath, kvel* (ex. Śā), 1 *guj* (ex. Kt; read by Kṣ S also), *meḍ* (4).

With Kṣ S Śā H V : *aṭh* (ex. S), *uṭh* and *uh* (M also), *till* (Kk also), *tūḍ, dhaṇ, dhvaṇ, plev* (M also), 1 *mañc* (ex. Kṣ : read by Kk also), *mṛñj* (ex. Śā; read by Kt also), *lūṣ*, 1 *svan* (M also) (12).

Miscellaneous: *kakk* (with Kt V), *khep* (with Śā), *jyut* (with Śā H V), *bhṛṣ* (with Kṣ), *mṛj* (with S H), *vaṣk* (with Kk Kt V), *vrañj* (with S), *ślek* (with Kk), *svaṅg* (with Kk Kt V) (10).

With V alone : *jurv, baṇ* (2).

Of the above additions only two, viz. *jurv* (purely Vedic) and *jyut* seem to have actually occurred in the literature. *deb and sūrṣy* are given in

12. The Perf. from *i* is *iyāya*, from *ī*, *ayāṁcakāra*.

13. On this M remarks: *ayatiṁ dīrgham icchanti Cāndrāḥ*. LIEBICH's ed. has however *i* as given above.

addition to *dev* and *sūrkṣy* of others which shows that the author was not sure of the right spelling. Besides reading *śraṇ* in the tenth class like others, the author reads it in the first class also but forms like *śraṇati* are not met with in the recorded literature. It is possible that *dhaṇ* and *dhvaṇ* are Prākṛtic variations of *dhvan* while *baṇ* is set up to account for the noun *bāṇa* 'arrow'.

The figures of additions shared by other schools: V 33, H 29, Śā 27, S 24, Kṣ 22, Kk Kt each 18, and M 13. Here again V shares the highest number of additions and H comes next. Of the other schools the Jain school of Śā is considerably more influenced than the Kk and Kt. Of the commentators of the P.Dh. it is interesting to see that while Kṣ and S show a considerable influence, M is comparatively less affected.

Additions of Kk (564)

Peculiar to Kk (533) : 2 *aṁh, akk,* 2 *and, ap, app, abb,,* 2 *amm, ark, alark, all, avy, avv,* 1 *ah, ikṣ, iṅgh,* 1 *īḍ, iṇ, iṇḍ, iraṇ,* 1 *il, ill,* 2 *iṣ, īṭ,* 1 *īḍ, īrṣ,* 2 *u,* 2 *ukṣ, uṭ, uṇḍ, un, ū,* 1 *ūṛj,* 2 *ṛ,* 1 *ṛkṣ,* 1 *ṛph, ṛbhukṣ,* 1 *ṛmph, ṝ, ḷ, ḹ, e, ek, eḍ, ai, o, au, kakk, kakṣ, kaṅkh,* 1 *kacch,* 2 *kacch, kañj, kaḍamb,* 2 *kaṇṭh,* 2 *kaṇḍ,* 2 *kamb,* 1 *kark,* 2 *kal, kalañj,* 2 *kall, kalh,* 3 *kaś, kaṣṭ, kāṇḍ, kiṭṭ, kiṇ, kinth, kīj, kīṭ, kīv, kukk,* 1 *kukṣ, kuṅk,* 3 *kuc,* 2 *kuñj,* 1 *kuṭ,* 1 *kuṭṭ,* 1 *kuṇ, ku(m)bh,* 1 *kumbh, kurk, kuh,* 1 *kūṭ, kūmb,* 1 *kṛṇ, keṇ, kail,* 1 *kol,* 2 *kol, kaul, krim,* 1 *kruḍ, kluñc,* 1 *kṣaṇ,* 1 *kṣu, kṣmai, khaṅg,* 2 *khaṇḍ, khall, khiṅk, khuc,* 1 *khuṇ,* 2 *khuṇ, khṛ, khṛṇ, kheṇ, khail, khaul, khvel, gaṁh, gaḍḍ, gaṇ, gath,* 2 *gard,* 2 *gal, gall, gāḍh, giṇ, giṇḍ, gill, gīl,* 2 *guj, guṭ, guḍ, guṇ,* 2 *guṇṭh, guṇḍ, gul,* 1 *gulph, gull,* 2 *guḥ, gūḍ, gūl, gūh, geṇ, goṇ, gruñc, grev, glaip, glau, ghaṭṭ,* 1 *ghaṇ, ghaṇṭ, gharaṭṭ, ghuj, ghuṭṭ, ghurd, ghṛṇ,* 1 *gheṇ, ghev, ghoṇ,* 1 *cakk,* 2 *caṭ, caṇḍ, cann, cab,* 2 *camb, carkk,* 2 *carc, carh, cav, cikṛ, cirb,* 1 *cil,* 2 *cil, cill, cīl, cu, cuc(y),* 2 *cuṭ,* 2 *cuṇḍ, cub,* 2 *cumb, cul, cuh, cuc(y), cvan, chann, charch, chil, chill, chīl, chu, chel, jag, jaṅgh, jaṭh, jaṇ,* 2 *jap,* 3 *jambh,* 2 *jal, jall,* 1 *jah, jāṅkṣ, jāp, jiñj, jiṇ, jinn, jil, jill, jīl,* 1 *jun, junn,* 2 *juṣ, jūp, jṛmb,* 2 *jṛmbh, jvid jhim, jhil, jhill, jhīl, jhu, ṭamb,* 2 *ṭal, ṭall, ṭu, ṭhal, ṭhall, ṭhu, ḍ ḍamb, ḍal, ḍall, ḍah, ḍiṇḍ, ḍimb,* 2 *ḍimbh, ḍih, ḍu, ḍuṇḍ, ḍumb, ḍumbh, ḍuh, ḍol, ḍhaṇ, ḍhaṇḍh, ḍhal, ḍhall, ḍhu, ḍhuṇ, ḍhol, ṇu, takk,* 3 *takṣ,* 2 *taṇḍ,* 1 *tamb,* 2 *tarj, tāmb, tīv, tuṅg, tuṇṭ, tuṇḍ, tumb,* 1 *tul, tull,* 2 *tuh,* 1 *tṛṇ, tem,* 2 *tev, truṇḍ, daḍḍ,* 1 *daṇḍ,* 1 *dambh, dāḷimb, dṛḍh, dṛṣ,* 2 *de,* 2 *dai, dol, dramm, dhaj, dhīv, dhuj,* 3 *dhṛ,* 1 *dhṛṣ, dhol, nañj,* 2 *namb,* 2 *nal, nall, niḍ, nimb, nil nill,* 1 *niṣk,* 2 *nīl,* 1 *nu, nuṇumb, nau,* 2 *pakṣ, paṭṭ, paḍḍ,* 2 *paṇ,*

3 *paṇḍ*, 2 *pal*, 1 *pall*, 2 *paṣ*, *pāṣ*, *pāṣaṇḍ*, *piṭṭ*, 2*piṭh*, *piṇ*, 2 *piṇḍ*, *pipal*, *pipīl*, *pippal*, 1 *pil*, *pill*, *pīḍ*, *pīṇ*, 2 *pīl*, 1 *pu*, 2 *pu*, 1 *puṇ*, 3 *puṇḍ*, 2 *pul*, *pull*, *puṣk*, 1 *puṣp*, 1 *pūṇ*, 1 *pṛṇ*, *pṛt*, 2 *pṛth*, *pṛs*, 1 pruth, 2 *plakṣ*, 2 *phaṇ*, *phu*, *phul*, *phreṇ*, *ba(ṇ)ṭ*, 3 *barh*, 2 *bal*, *ball*, 1 *baṣk*, 1 *bah*, *bāḍh*, *biṅk*, *bimb*, 1 *bil*, *bill*, *bilh*, *bu buḍḍ*, *bunth*, 1 *bul*, 2 *bul*, 1 *bull*, *buṣk*, *būll*, *bṛk*, *beṇ*, *brah*, 1 *bhañj*, *bhaṭṭ*, 2 *bhaṇḍ*, 2 *bhall*, 1 *bhāṇḍ*, 2 *bhāṇḍ*, *bhind*, 1 *bhil*, 2 *bhil*, 1 *bhill*, 2 *bhill*, *bhu*, *bheṇ*, 2 *makṣ*, *mag*, *magh*, *macch*, *maṭṭ*, *maḍḍ*, *maṇṭ*, *mayūkh*, milh, 1 *mī*, 1 *miṇṭ*, *miṇṭh*, 1 *mind*, *mu*, *mukṣ*, *mukh*, 2 *muc*, 2 *muñc*, *muṭṭ*, *muḍḍ*, 1 *muṇ*, 1 *mul*, *mull*, *muṣk*, 2 *mū*, 2 *mṛ*, *mṛkh*, *mraḍ*, *mruj*, *mruñj*, *mlaḍ*, *yuñch*, *yeraṇḍ*, *yel*, *yoṣṭ*, *yauṇḍ*, 1 *ragh*, *racch*, *raṭṭ*, *raṇḍ*, *ral*, *rall*, *rav*, *riṅgh*, *riṇ*, 1 *riph*, *rimbh*, 2 *ruṭ*, *ruṇḍ*, *rumb*, *rolamb*,*lagh*, *lañch*, 1 *laṇḍ*, 2 *lamb*, 1 *lambh*, 1 *likh*, *liṅkh*, *limbh*, 2 *vakṣ*, *vag*, *vagh*, 3 *vaṭ*, *vaṭṭ*, *vaḍḍ*, *vaph*, 3 *val*, 2 *vall*, *vāñc*, *viṅk*, *vīṇ*, *vīth*, *vukh*, *vṛḍh*, 1 *vṛṇ*, 2 *vṛṇ*, *veṅk*, 2 *veṇ*, *śakvṛ*, 2 *śaṭ*, 2 *śaṇ*, *śaṇḍ*, *śab*, 1*śamb*, *śard*, *śalaṅk*, 1 *śall*, *śikhaṇḍ*, *śimb*, *śuc*(*y*), 1 *śūn*, *śekhṛ*, *śephṛ*, *śauṇḍ*, 2*śraṁs*, *śrākh*, *śvan*, *ṣaṇḍh*, *saṅgh*, *saj*, 2 *sañj*, 2 *saṭ*, *saṇ*, 2 *sarj*, *siṁh*, *siṅg*, *suṇṭ*, *sumb*, *sṛkṣ*, 1*sṛdh*, *skhall*, *stab*, *stamb*, *stumb*, *stumbh*, *stūṇ*, *stṛkh*, *stvan*, 1 *snuh*, *syai*, *sruñc*, *slaṅk*, *sluñc*, 2 *sval*, *svall*, *svind*, *haṭṭ*, *haṇ*, *haṇḍ*, *ham*, *hamb*, *hiṭṭ*, *hiṇṭ*, *himb*, *hiraṇ*, 1 *hiṣk*, *huñj*, *huṇ*, 3 *huṇḍ*, 4 *huṇḍ*, *hūṇ*, 3 *heḍ*, *heramb* and *haiḍ*.

Whereas all other dhātupāṭhas have a few peculiar and unintelligible roots, there is nothing in any one of these which would come anywhere near this huge mass of quaint and unheard of roots piled by Kk. A fraction of these roots can be explained on the usual two-fold motive: (i) supplying a verbal base, to the nouns believed to be derived from it and (2) setting up new roots on rhyming basis. Besides there is as seen above, a considerable number of cases of error, orthographic or of some other nature. But even after making allowance for all these types, there still remains an unusually large number of cases which are absolutely unintelligible—one even wonders whether they have anything to do with Sanskrit words at all, nay even with Middle or New Indo-Aryan words :

As cases of error, the following roots may be mentioned: 3 *kuc khuc* etc. for *kuj khuja* etc., *gath* for *math*, *jvid* for either *kṣvid* or *svid*, 2 *tarj* for *karj*, 3 *dhṛ* for *dhvṛ*, *mind* for *mand*, *vāñc* for *vāñch*, *iṅgh* for *daṅgh* etc. Besides there are also cases like *śab* beside *śav*, *ṣyai* beside *ṣṭyai*, *vagh* beside *vaṅgh*, *bṛk beside vṛk* etc.

As cases of roots posited with a view to furnishing verbal bases to nouns, the following are worth noting: *aṭṭ* '*mañcikāyām*' (: *aṭṭa* 'turret, watch tower'), *aṇḍ* '*āvaraṇe*' (: *aṇḍa* 'egg'), *ikṣ* '*āsvādane*' (: *ikṣu* 'sugar-cane'),

2 *kaṇṭ* '*vedanāyām*' (: *kaṇṭa* and *kaṇṭaka* 'a thorn'), *guḍ* '*mādhurye*' (: *guḍa* 'treacle'), *cul* '*drāvakaraṇe pākāgnikuṇḍe ca*' (: *cullī* 'a fire-place'), *dāḷimb* '*mardane*' (: *dāḷima* [Mar. ḍāḷimba] 'a pomegranate'), *paṭṭ* '*bhadrāsane*' (: *paṭṭa* 'a slab'), *pāṣaṇḍ* '*himsā-gatyoḥ*' (: *pāṣaṇḍa* 'a heretic' or 'heretical' or 'heresy'), 2 *plakṣ* '*chāyāyām*' (: *plakṣa* 'Ficus Infectoria'), *brah* '*vṛddhau*' (: *brahman* 'the highest Divinity' (literally 'growth' or 'development'), *bhill* '*vanapraveśe*' (: *bhilla* 'N. of a wild mountain tribe') *mayūkh* 'gatau' (: *mayūkha* 'a ray'), *yeraṇḍ* '*snehane*' (: *eraṇḍa* 'the castor oil plant'), *raṇḍ* '*vyabhicāre*' (: *raṇḍā* ' slut'), *ṣaṇḍh* '*nirbīje*' (: *ṣaṇḍha* 'a eunuch'), *simh* '*himsā-gatyoḥ*' (: *simha* 'a lion').

Among these new creations are to be noted a number of roots which seem to be specifically intended to explain names of certain parts of the animal body: thus *antr* (cl. X) '*jīvane*' (: *antra* 'entrail'), 2 *kaṇṭh* '*gilane*' (: *kaṇṭha* 'throat'), 1 *kukṣ* '*pūraṇe*' and 2 *kukṣ* (Cl. X) '*avakāśe*' (: *kukṣi* 'belly; womb'), 1 *gulph* '*gatau*' (: *gulpha* 'ancle'), *jaṅgh* '*gatau*' (: *jaṅghā* 'shank'), *jaṭh* '*dhāraṇe*' (: *jaṭhara* 'the stomach'), *tuṇḍ* '*bhakṣaṇe*' (: *tuṇḍa* 'mouth'), 2 *pṛṣ* '*gatau*' (: *pārṣṇi* 'the heel'; *pṛṣṭha* 'the back'), *mukh* 'gatau' (: *mukha* 'face'), *muṣk* 'gatau' (: *muṣka* 'a testicle'), *śeph* '*kṣaraṇe*' (: *śepha* 'penis'), *hast* (Cl. X) '*ādāne*' (: *hasta* 'hand').

With a few exceptions, in all the above cases the meaning is so couched as hardly to leave any doubt as to the noun each root is meant to refer to.

The tendency to set up roots for explaining nominal derivatives is more or less common to all the dhātupāṭhas, but Kk has gone to extremity, not only in the huge number of roots thus set up, but also in the class of words thus sought to be explained. He has assumed roots even to explain indeclinables and proper names (of obscure origin): thus *nan* '*śaṅkāyām*' (cf. *nanu* 'is it not?') and *nūn* '*niścaye*' (cf. *nūnam* 'certainly') (both belonging to the 10th cl.); and *bilh* '*prādhānya-paribhāṣaṇa-himsā-dāneṣu*' (: *Bilhaṇa* 'N. of a poet'), *malh* 'id' (: *Malhāri* (Skt. *Mallāri*) 'Name of a deity'; *Malhaṇa*, Name of a poet'), *veṅk* '*gatau*' (: *Veṇkaṭa* 'Name of a hill and of the deity presiding it'), *heramb* 'mardane' (: *Heramba* 'Name of Gaṇapati'), etc.

Kk also sets up roots to explain adjectives which really belong to different roots: thus *gāḍh* and *bāḍh* '*tīvra-gatau*' (*gāḍha* 'plunged' or 'tightly drawn' from √*gāh* 'penetrate into': *bāḍha* 'strong, mighty' from √*baṁh* 'increase, make firm'), *tīkṣ* '*jighāṁsāyām*' (: *tīkṣṇa* 'sharp, pointed' from √*tij* 'be sharp'), *dṛḍh* '*dhāraṇe*' (: *ḍṛḍha* 'firm, firmly fastened' from √*dṛṁh* 'make firm').

The additions have been made partly by making insertions in the old dhātusūtras and partly by framing new ones. As instances of the first

type, the following may be quoted: *kanth, bunth* and *kunth* to *manth* etc. (*himsā-saṁkleśayoḥ*); *akh, mukh, likh* etc. to *ukh, nakh, makh* etc. (*gatau*); *dhuj, dhaj* to *dhṛj, dhaj* etc. (*gatau*); *kiṇ, kuṇa, khuṇ, caṇ* to *aṇ, bhaṇ raṇ,* etc (*śabde*) and so on. Sometimes the inserted roots even outnumber the original ones. Thus as many as 10 roots, viz. *phreṇ, beṇ, bheṇ, veṇ, keṇ, kheṇ, geṇ, gheṇ, goṇ* and *ghoṇ* are added to the original single root *preṇ* (*gati-preṣaṇa-śleṣaṇeṣu*); as many as 32 roots, *kiṇ, kuṇ, khuṇ,* etc .(mentioned above) to 11 roots *aṇ, raṇ* etc. (*śabde*); 29 roots, *kail, khail,* etc. to 11roots *vel, cel,* etc. (*gatau*); and 14 roots, *raṁ, en* etc. to 2 roots *vaṁ, saṁ* (*saṁbhaktau*). Here one strongly suspects that it is the alliterative sound that is responsible for the insertion of these roots in the sūtras concerned rather than any connection with the meaning specified there. Indeed there are two extreme cases, in one of which, to the usual roots *ku, khu* etc. (*gatau*), is added, after *u,* the whole series of the remaining vowels: *ū, ṛ, ṝ, ḷ, ḹ, e, ai, o, au* (I, 551); and, in the other, to the usual roots *cyu, chyu,* etc. (*gatau*) are added the whole cerebral and labial series (excepting the nasals): *ṭu, ṭhu, ḍu, ḍhu* and *pu, phu, bu bhu*!

As to the framing of the new sūtras altogether, Kk has 707 sūtras in the first class as against 616 of the allied Kt. Dh. i.e. an addition of 91 sūtras, the number of the roots contained in each single sūtra varying from 1 to 33. Not only are the roots collected in a group on the rhyming principle (*lumb, rumb, thumb, tamb,* etc. '*mardane*'; *cil, cīl, chil, chill, chīl,* etc. '*adane*'; *guh, gūh, kuh,* etc. '*himsā-gatyoḥ*'), but even the sequence of these newly inserted groups (or sūtras) seems to have been influenced by the same consideration. Thus I, 121-126 all end in *-ṭṭ* : *ghaṭṭ* (*khaṇḍane*), *haṭṭ* (*nivāse*), *piṭṭ* (*calane*), *hiṭṭ* (*bandhane*) etc.; 159-165 in *-ḍḍ* : *gaḍḍ* (*vadanaikadeśe*), *maḍḍ* (*uccair dhvanau*), *vaḍḍ* (*khanane*) etc.; 168-179 in *-ṇḍ* : *paṇḍ* and *piṇḍ* (*dhāraṇe*), *aṇḍ* (*āvaraṇe*), *bhaṇḍ* (*kutsāyām*) etc.; X, 4-7 in *-ntr*: *tantr* (*darśanīye*), *antr* (*jīvane*), *kantr* (*upāye*) etc.; 42-50 in *-st* : *mast* (*dhāraṇe*), *must* (*gandhe*), *bist* (*jalottaraṇe*) etc. etc. It is hardly necessary to add that these new roots, even when appearing in new sūtras, have been modelled upon the old roots generally common to all other dhātupāṭhas (even if not attested), as is shown by the place of their insertion. Thus, in the case of the above mentioned five groups, the one ending in *-ṭṭ* is inserted after *cuṭṭ* (*alpībhāve*), that in *-ḍḍ* after *kaḍḍ* (*kārkaśye*), that in *-ṇḍ,* after *kuṇḍ* (*vaikalye*), that in *-ntr,* after *yantr* (*saṁkocane*), and finally that in *-st,* after *pust* (*ādarānādarayoḥ*). This once more shows how the tendency of rhyme-word building has been greatly responsible in the setting up of new roots.

I have already said above that the desire to supply verbal bases to nouns explains only a portion of these new creations. A large majority of

these still remains unexplained for nothing corresponding to it is found, not only in the context of Sanskrit but even in the later stages of the Indo-Aryan. One strongly suspects that quite a major part of these otherwise unexplained roots was intended to explain Dravidian vocables, particularly from the Kannaḍa language. We have here, for instance, roots like *taṇḍ* 'samūhe', *app* 'pālane', *abb* 'janane' and *avv* 'bandhane pālane ca' which were doubtless meant to explain the nouns *tāṇḍā* 'crowd' *appa* 'father', *abbe* and *avve* (literally meaning 'mother' but simply suffixed to names of women to show respect) respectively. The fact that these additional roots show a greater frequency of cerebral sounds than the common roots of the dhātupāṭhas in general confirms the same inference. Thus in the whole dhātup. roots beginning with cerebrals number 40 in Kk while figures for the same in the other dhātupāṭhas are: 19 V, 18 P, 16 H, 12 J Śā, 10 Kt, and 7 Śā C. When we also further consider that the only two available manuscripts are written in Kannaḍa, that the commentator was a Kannaḍiga and that the commentary also is a 'Karṇāṭa-ṭīkā', the above presumption gets more confirmation. It seems that these roots which are suspected of Kannaḍa origination were not there in the original Kk. Dh., but were interpolated by the commentator out of a mistaken notion of the derivation of the words in his language which he wanted to etymologize.[14]

Shared (31):

With Kṣ M S Kt Śā H V: *jabh, jim, til* (ex. Śā), *śaṇ* (4).

With Kṣ Kt H V: *khu, taṁs,* 1 *pac* (also S), 2 *ruth* (4).

With M S Kt V: *tumb* (H also), *marb, lumb* (H also), 1 *su* (4).

With Kt alone: *ij,* 1 *ṛch, dhruv, maṣk* (V also), *mreḍ, mleḍ, hvel* (7).

With V alone: *kañj, kuṭh* (also H), 2 *caṇ* (*śabde*), 2 *can, ḍhuṇḍh, pañj, mañj, mark* (8).

Others: *ju* (with Kṣ H V), *niṣ* (with Kt H V), *rikh* (with S), *sraṅk* (M S Śā V) (4).

Among the roots shared with V alone, many are given by V as *sautra* roots and the meaning also differs (except in the case of √*kuṭh*). They could, for that reason, be regarded as altogether different roots. Kt alone therefore remains that can be said to have shared exclusively with Kk. The figures of additions shared by each school are: V 24, Kt 20, H 13, S 11, Kṣ M 9, Śā 4.

14. It is possible that many of these words might have occurred in the highly Sanskritised Kannaḍa works, but at any rate they are not met with in the purely Sanskrit works.

Additions of Kt (6)

Peculiar to Kt (3): 3 *kṣi, dhauḍ,* 2 *mañk.*

Shared (3):

With H V: 2 *dhinv, bharbh,* 2 *vañk* (also with M S).

Additions of Śā (6):

There are only two additions peculiar to Śā, viz. 1 *ṛṣ* and 2 *trai* while a third one viz. 4 *vall* is probably the same as *call* of J and *ball* of Kk. There are three additions which have been shared with others: *toḍ* (with H), *śvañg* (with M) and 2 *hval* (with S).

Additions of Kṣ (36):

Peculiar to Kṣ (4): *ev, ṭauk, bed, bharbh.*

Shared (32):

With S H V: *ikh,* 2 *inv,* 1 *kaś, khaṣ,* 1 *khuṇḍ, mañkh.*

To these may be added the following ghaṭādi roots first introduced into the P. Dh. from Bhoja by Kṣ: *kṣap, trap, dal, raṇ, val, skhal* (12).

With S V: *ay* (U), *uṅkh,*[15] *dhrākh,* 2 *muṣ,* 1 *luḍ* (5).

With H V: *argh, int,* 2 *kṣi, narb, riṅkh* (5).

With S H: *ves* (1).

With V alone: 2 *kac, jyo, danv, dāy* (4).

With H alone: 1 *kav, tsadm,* 1 *stan* (I, 880 b) (3).

With S alone: *kaj, naṅkh* (2).

In all, therefore, V shares 26 additions, H 21 and S 20. It is to be noted that not a single one of these additional roots is found in M.

Additions of M (6)

There are 6 additions in M, 2 of which are shared by S H V, viz. 1 *kiṭ and* 2 *mañgh;* and 4 are shared by S alone: *klu,* 2 *roḍ,* 2 *sac* (U), and *sarv.*

Additions of H (5)

There are 5 additions in H, *jañkṣ,* 3 *bal,* 3 *ramb, rimb* and *vehl* all of which are shared by V.

15. But Kṣ himself looks upon the root as *anārṣa.* See below under omissions.

Additions of V (29)

olañj, olaṇḍ, 2 *kav, klīv, kṣīv, khoṭ,* 2 *caṣ, cell, jṛbh,* 4 *tamb, tarb,* 2 *toḍ, dhū,* 2 *dhṛṣ, naj,* 2 *pall, prī, phal, baṭh,* 1 *rih, rīv, luh, vac,* 1 *vadh,* 1 *vis, śāl, hruḍ, hrūḍ,* 2 *hreṣ.*

All these are peculiar to V, except *vis* and 2 *hreṣ* which are found in S also. *kav, klīv, kṣīv* and *baṭh* are given beside *kab, klīb, kṣīb* and *vaṭh* which latter is the common spelling (*klīv* and *kṣīv* occur also in J, but they must be misprints for *klīb* and *kṣīb*, since they occur in the group of roots ending in b). Others give *olaṇḍ* only in the 10th conjugation, while V assigns the root to the 1st class also. *Olañj* seems to be only a variant of the same (cf. *gāṇḍīva* : *gāñjīva*[16] 'Name of Arjuna's bow'). In reading the roots *dhū, prī* and *vac* in the 1st class, V only makes explicit what was already implicit in the P. Dh. where these roots are read in the *yujādi* class and are furnished with the ubhayapada. *Rīv* seems to be only a variant of *cīv*[17] originating in orthographical confusion. Lastly V is the first to recognize *vadh* as an independent root which so far was regarded as only a substitute for *han* in certain forms.

Additions of S (21)

Īkh, kāñc, 1 *kru, gaṇḍ* (*M. Dh. I,* 65), 1 *caṭ, tīk, trakh, traṅkh, dip, dep, dhep, band, bhind, muṅkh, rūṣ, larb,* 1 *vidh,* 1 *ven, śiṅkh, śai,* 2 *hmal.*

Two roots from the above list are noteworthy, viz. *rūṣ* and *ven*. Forms from *rūṣ* 'strew' are found mostly in the classical literature (*rūṣita* in the epics also), while those from *ven* 'long' occur only in the Veda and the Brāhmaṇas.

This investigation, even though confined to the first class, makes it sufficiently clear that the dhātupāṭhas were never regarded as closed lists. Each dhātup. had something new to add, although all the new additions were not necessarily accepted by thsoe who came after — some portion of the contribution of each new work always remained unassimilated — and even what was accepted was not necessarily accepted on all hands. Nevertheless, it serves to show that the need was constantly felt to bring the dhātup. in line with the observed facts of the language. It is also noteworthy that the new additions pertain not only to roots which make their first appearance in the later language but also to those which had become obsolete in the post-Vedic period (like *rej, vlaṅg, ven,* etc.).

16. Not recorded in M W.
17. Cf. *rīv-ṛñ cīve* Kkd. (295c).

Not only did the later schools make additions from time to time, but even within the Pāṇinian school itself its followers found it necessary to recognize in some way the new material that was coming to light. Whereas all the additional roots in Kṣ, M and S mentioned above were not actually incorporated within the P. Dh. by these commentators — some of them had already crept into the versions which they followed while the others they simply mentioned as read by this or that author or they passed an opinion upon the admissibility or otherwise of these — it is important that they thought it necessary to take note of these. What is more, such roots were definitely regarded as acceptable (*'grāhya'* or *'yukta'*) if they had a fair support in the actual usage, as is clearly shown, for instance, by Sāyaṇa's remarks on roots like *saśc, añc, tik, manth, snai* etc.[18]

But there was a technical difficulty in the admission of these new roots. Pāṇini's definition *'bhūvādayo dhātavaḥ'* required inclusion in his list for a vocable to be termed a dhātu. How then were these new roots, which were not read by Pāṇini, to be now accepted as roots? To obviate this difficulty some began to look upon the dhātup. — or at least some individual classes — as being merely indicative (*upalakṣaṇārtha*), and not exhaustive. Thus Maitreya interpretes the *vṛt* at the end of the first class as marking the end of the *yaj* sub-group only, and not of the whole *bhū-* class, thereby making room for roots like *culump, arh* etc. (*"vṛd iti yajādiparisamāpteḥ / Nyāyyavikaraṇās tu bhvādayo'parisamāptā eva, avṛtkaraṇāt / Tenātrānye'pi dhātavaś culumpaprabhṛtayo*[19] *draṣṭavyāḥ / Tenedam api sidhyati, 'kalāṁ nārhanti*[20] *ṣodaśīm' iti"*, p. 75). He also quotes a view held by some grammarians according to whom the *vṛt* at the end of the fourth class similarly concluded the *puṣ-* sub-group and not the whole *div-* class, so that it was possible to make room for roots like *kṣī, mṛg* etc. (*Vṛd iti divādeḥ puṣādeś*

18. *'atra saścim api kecit paṭhanti, 'tamajikosaśca' ityādi ca dṛśyate'* (p. 67)/ " *'yaḥ pūrṇād udañcati', 'aviraghnīm udañcantv āpaḥ' ityādidarśanād 'añcety eke' ity ābharaṇoktaṁ yuktam"* (p. 67)/ *'atra daṇḍake tikṛ tīkṛ iti kvacit paṭhyete, tad api tikaḥ pratīkaḥ iti darśanād grāhyam eva'* (p. 57)/ *"atrāyaṁ dhātur yady api Kṣīrasvāmyādibhir na paṭhyate tathāpi Maitraiya — Candra — Durgaiḥ paṭhitatvāt, 'śamīgarbhād agniṁ manthati', 'tato yathā prāśu manthati', 'yadi mathyamāno na jāyeta' ityādidarśanād asty eva"* (p. 48)/ " *'ṣṭai veṣṭane/ .... svāmyādayastu ṣṇai veṣṭana iti paṭhanti/ .... ṣṇai śobhana ity api bhūvādau draṣṭavyaḥ/ prayujyate ca bhārate 'pāñcālyāḥ padmapatrākṣyāḥ snāyantyā jaghanaṁ ghanam....'* etc."

19. The ed. actually reads *dhātavo iculumpaprabhṛtayo* which is evidently to be corrected above.

20. This *arh* was evidently regarded as different from *arh* actually listed in the *dhātup.* (P. Dh. I, 776) with the meaning *'pūjāyām'*. Commenting on this latter Kṣ remarks: *arghir dhātvantaram, kalāṁ nārghanti ṣoḍaśīm.* But as Liebich (footnote 3) has observed, Manu 2.86 and Pañcatantra II, 58 where the quarter occurs, the editions read *arhanti*, not *arghanti*.

ca parisamāpteḥ/ Anye tu puṣādi-parisamāptyarthaṁ vṛtkaraṇam, divādays tv aparisamāptā iti 'kṣīyate' 'mṛgyati' ityādi siddham ity ācakṣate' p. 101). From the same authority (p. 121) we learn that the Dhātupārāyaṇa did not look on the seventh class as a closed one (*'dhātupārāyaṇe tu gaṇasamāptir neṣyate'*).

But the strongest support for this view seems to have been found in the gaṇasūtra *'bahulam etan nidarśanam'* (P. Dh. X, 392) occurring at the end of the P. Dh. Opinion is sharply divided on the exact interpretation of this rule, some taking it as referring to the roots of the 10th class only, others to the adanta roots, some to the meaning, while still some others regarding it as referring to the whole dhātupāṭha which they thus regarded as an open list. Kṣ evidently prefers this last interpretation since he gives it first: *Yad etad bhavatyādidhātuparigaṇanam, tad bāhulyena nidarśanatvena jñeyam/ Tenāpaṭhitā mili-klavi-prabhṛtayo laukikāḥ, stanbhu-stunbhvādayaś ca sautrāś, culumpādayaś ca Vākyakārīyā dhātava udāhāryāḥ/ Vardhate hi dhātugaṇaḥ* (p. 198). In the corresponding passage (pp. 401-402) Sāyaṇa uses the term *prayogasiddhāḥ* 'established by usage' for *laukikāḥ* and Bhaṭṭoji adds one more category of unlisted roots, viz., the *Vaidika* (already appearing in the fourfold classification of roots by Kkd. 4 cd.: *pāṭha-sūtra-loka-āgamasthitāḥ*). Thus beside those actually listed in the dhātupāṭhas, roots coming from three other sources have been recognized here, viz., those referred to in the grammatical literature (Sūtra, Vārttika, etc.), those found in the spoken language alone, and those which had appeared in the Vedic literature but become obsolete later on.

But some people seem to have doubted the authenticity of the gaṇasūtra *'bahulam .....'* etc. Explaining a statement of Kaiyaṭa (quoted below), Nāgeśa remarks: *'bahulam etan nidarśanam' ity api yadi prāmāṇikaṁ, tarhi ṇica eva tat, na gaṇapāṭhasyeti bhāvaḥ'*.[21] And the Śabdenduśekhara definitely calls it unauthentic (*anārṣa*, cf. Bālam. op. cit.). To come to the statement of Kaiyaṭa: commenting on *'pāṭhena dhātusaṁjñā'* (Bh. to Vā 1 under P 1, 3, 1) he says: *ye dhāupāṭhe paṭhitās teṣām eva dhātusaṁjñā/ Teṣāṁ ca pāṭho nopalakṣaṇārthaḥ, api tu iyattāpratipādanārthaḥ,* 'The nomenclature dhātu (accrues) to those alone which have been read in the dhātupāṭha. And their listing is not merely by way of illustration, but is for the sake of exact enumeration.' This would ordinarily bar the unlisted roots from being recognized as such but Kaiyaṭa makes allowance for such roots in case they have appeared in the three masters of Skt. grammar. (*'Tatra sūtra-vārttika-bhāṣya-gaṇeṣu ye paṭhyante te'pi sūtrakārādiprāmā-*

21. Nirnayasagar 2nd ed. (1935), p. 112, column 2, lines 2-3.

ṇyād dhātutvenāśrayaṇīyāḥ'.[22] It is, however, interesting to note that according to Nāgeśa the sanction for the acceptance of such roots lies not so much in the intrinsic authority of these gentlemen as in the room that is thus afforded to the inference that these roots were formerly read in the dhātupāṭha — how otherwise would these *munis* speak of them? — but are now somehow missing in the list, *'tena ca pūrvaṁ dhāthupāṭhe paṭhitānām idānīṁ pāṭhabhraṁśo'numīyate'* — a typically orthodox Hindu view!). He does not make the same concession expressly for the laukika roots, but it seems that ultimately he would accept these also provided they were well attested. For, even according to Kaiyaṭa, the rule concerned is *'prayuktānām idam anvākhyānam'*, and Nāgeśa says expressly: *prayuktānāṁ ca saṁpraty adṛśyamānapāṭhānām api bhaviṣyati.* Anyway the overwhelming majority of the authorities on the dhātupāṭha proper were in favour of accepting the laukika roots, even when such roots were not actually inserted in the P. Dh.[23]

Omissions:

The opposite tendency, viz., of dropping the roots for some reason or the other is also seen to be at work, although not so powerful in the later stage as in the earlier one. Here also I give, in the chronological order, important cases of new omissions in the first class in each dhātupāṭha, both peculiar to it and also those shared by the others.

Omissions in C (33):

Peculiar (18): *al, karj, karb,* 1 *can, chaṣ, pay, pras, barb, bhreṣ, raṭh,* 2 *luṭh,* 2 *van, śac,* 1 *śuṭh, śraṅk, ślaṅk, śloṇ,* 1 *heḍ.*

Shared (15):

With Kk Kt: *kṛ* (also with M), *gud, vell* (also with Śā), *śaṣ,* 1 *stip* (also with J) (5).

With J Śā: *kag* (also with H), 3 *van 'nocyate'* (also with H), *dhraj, vaṅkh* (also with Kt) (4).

22. Thus Kaiyata accepts roots *raś* and *luś* on the authority of the Bhāṣyakāra, although they are not read in the P. Dh., cf. ch. VIII, footnote 14.

23. Puruṣakāra (p. 93) quotes a view of Sudhākara on the imperative need of accepting roots in actual use even if unrecognized in earlier grammatical lists thus: *atra bhūvādisūtre Sudhākaraḥ, 'no khalu pārāyaṇikair apradarśanād abhāvānumānam, lakṣyapāratantryeṇa teṣām avasthānāt/śiṣṭaprayogopagītanāmnaḥ śabdarāśer anāśrayaṇe pradhānavirodhāl lakṣaṇasyālakṣaṇatvaṁ mā bhūd' iti /*

Miscellaneous: *kṣvel* (with Kk Kt H V), *dhṛj* (with Kt), *jinv* (with M J), 2 *varh* (with Kk), 8 *valh* (with Kṣ), *huḍ* (with M Kk) (6).

In some of the above cases it is not possible to decide exactly whether they are to be regarded as omissions in C or as cases of later additions in P. Two cases are particularly interesting, viz., 1 *can* and *śloṇ*. They are read in all the three versions of the P. Dh. thus: *śráth-á* ..... *hiṁsārthāḥ* (I, 836-839)/ *can-a* (or *can-u*) *ca* (840) and *śróṇ-ṝ saṁghāte* (I, 484)/*ślóṇ-ṝ ca* (485). Whereas the reading of both these roots with a *ca* added (thus connecting the root with the meaning in the preceding sūtra) is strongly sufficient to suspect these roots as later insertions, the uniformity of form (in which they are given) in all the three versions and the absence of any referenc to some authority as its source should make us think twice before we pass such a judgment. My best guess is that these roots were added while assigning the meanings by Bhīmasena (or some such authority) who was honest enough not to smuggle them quietly and that subsequently Candra, who was not sure of the authenticity of these roots did not read them. — It is possible that *śraṅk* and *ślaṅk* are not really omissions and that *śrak* and *ślak* (given above under additions) are only variants for the same.

As regards *kṛ*, though it is not read by M also, it must have been a genuine root of the P. Dh. because, apart from the fact that forms like *karanti* are found in the Ṛgveda, Sāyaṇa in his bhāṣya under ṚV 1.82.1 definitely tells us that he removed √*kṛ* from the first class of the P.Dh. In the M. Dh. (p. 163), however, he merely tells us that *kṛ* read by some in class I is *'anārṣa'*. While C simply drops *kag* and 3 *van*, others who omit them here at least mention them at a suitable place in the sūtrap. (cf. e.g. H 4.2.25).

The figures of omissions shared with each school are: 8 Kk Kt, 6 J, 5 Śā, 3 H, 2 M, 1 Kṣ V. It is not without significance that Kk Kt show the highest number of common omissions.

Omissions in J (50):

In the printed edition of the J. Dh. there are four places in the 1st cl. where portions of the dhātup. have been evidently dropped inadvertently. They are: (1) after *ṇamau prahvatve* (688), 11 roots (all ending in *-m; yam, sam*, etc.); (2) after *gurv-ī udyamane* (762), 11 roots (all ending in *-rv; murv, parv, pūrv*, etc.); (3) after *vye-ñ* (908), 6 roots (*hve, hikk*, etc.); and (4) after *bheṣ-ṛñ* (90), 5 roots (*bhreṣ, aṣ*, etc.). That the omissions in these cases are purely inadvertent is clearly proved by the fact that these roots have been unanimously read in all the other dhātupāṭhas and that corresponding to these we have in the closely allied Śā. Dh. four groups

each of which is a continuous passage. A significant fact regarding the last two groups is that the meanings appearing against *vye-ñ* and *bheṣ-ṛñ* in the ed. are *pāke* and *dīptau* respectively which undoubtedly belong to *pac* and *tviṣ* respectively, which come at the end of the missing portions. We, therefore, ignore these and pass on to the genuine omissions.

Peculiar (15):

urv, kīl, 1 *kuṇṭh, tubh, durv,* 1 *duh, dhrāṅkṣ,* 1 *nal, bhram* (?), 1 *ruṭh, lāj,* 1 *luṭh, vraj,* 1 *śal,* 1 *heṣ.*

Shared (35):

With Kk Kt Śā: *kṣvid* (also with M), *ghas, taṅg, traṅg* (also with S H), *śraṅg, ślaṅg,* 1 *sphuṇḍ* (also with M) (7).

With Kk Śā: *kumb* (also with Kṣ), *chyu* (also with S), *dhrañj,* 1 *muñc,* 1 *ramb,* 1 *sajj* (6).

With Śā H: 1 *ji,* 1 *jñā* (2).

With Śā alone: *ant, uch,* 2 *kit* (with S also), 1 *kṣi, gluñc,* 1 *cīv, dhraj, parb* (with Kṣ also), *mah, śuk,* 2 *hoḍ* (11).

With Kk alone: *īrṣy,* 2 *kand, kuñc, tuḍ* (4).

With Kt alone: *gañj, muj* (also with V) (2).

With Kṣ alone: *karv,* 1 *hoḍ* (2).

With V alone: *muñj* (1).

It is somewhat surprising that roots of common occurrences like *bhram, vraj,* 1 *heṣ* and *sajj* (the last one dropped in Kk Śā also) should have been omitted. (Perhaps the omission of *bhram* is only inadvertent, as in the case of the missing passage No. 1 above). The root *ghas* is dropped, presumably to show that it is not a full-fledged root but merely a substitute of *ad* in certain forms mentioned in the sūtrap. The root *uch,* though dropped here is retained in the 6th cl. (others reading it at both places), which prcatically performs the same function.

The figures of sharing for each school are: Śā 26, Kk 17, Kt 9, Kṣ 4, S H 3, M V 2. The fact that out of total number 35 omissions, as many as 26 are common with Śā (out of which 10 are exclusive) underlines the close affinity between the two.

Omissions in Kk **(36):**

Peculiar (17):

arb, oṇ, 2 *kaṭ,* 1*kamp, kṛṇv, kṣiv,* 1 *cumb, jyu, jhaṭ, mruc, mluc,* 1 *ru, lakh,* 2 *varh, valg, veṣṭ, śel.*

Shared (19):

With Kt alone: 2 *kṣvid, gṛh,* 1 *jṛi,* 2 *jhaṣ,* 1 *dṛh, dhanv, dhvañj, bharv, bhraṇ, raṇv, vraṇ, sal* (12).

With Kṣ alone: *dhṛñj,* 2 *luṇṭh* (2).

Miscellaneous: *ñkh* (with S Kt), *dhraṇ* (with Kṣ Kt), 1 *barh* (with M), *mep* (with M Kt), *śu* (with M Kt V) (5).

Though *kṛṇv* is dropped here, it is read in the fifth class, to which it properly belongs. As regards *kṣiv,* it is doubtful whether it is a case of omission in Kk or addition in C. In the P. Dh. it is read actually by M only. Kṣ S read instead *kṣīv* and refer *kṣiv* to C.[24] It is, therefore, possible that *kṣiv* was an innovation of C which Kk did not follow.

That out of a total of 19 common omissions no less than 16 are shared with Kt (of which 12 are exclusive) is an eloquent testimony of the close relationship between the two.

Omissions in Kt (6):

There are six omissions, viz., *gṛj,* 1 *tañc, mruñc, mluñc,* 1 *vṛh* and *srek,* of which *mluñc* is shared by Śā H, while the rest are peculiar to Kt.

Omissions in Śā:

All peculiar (9): *kruñc, khurd, cay,* 1 *caṣ, drāṅkṣ, dhrākh, nṝ, b(v)āh, yūṣ.*

Omissions in Kṣ:

All peculiar (5): *karv, kmar,* 1*dhṛ, vel,* 1 *sphuṭ.*

Karv is missing in J. Dh. also, but it is one of the roots in *-rv* dropped inadvertently (see above). As regards *kmar,* Liebich suggests that its dropping must be only through oversight.[25] Regarding 1 *dhṛ,* Vardhamāna, probably following Kṣ, regards its reading in the 1st class as unauthentic, but it is justified by Sāyaṇa.[26]

24. Actually the M. Dh. says *kṣev-u iti Candraḥ.*

25. 'hier dürfte kmara hürchane nur versehentlich ausgefallen sein' (p. 47, footnote 3).

26. *'guñ avyakte śabde/....anantaraṁ 'dhṛñ dhāraṇe' iti paṭhyate/ vardhamāno' muṁ na sahate, yad āha 'kecid dhṛñ dhāraṇa iti paṭhanti so'nārṣaḥ'/ dharati dharate iti prayogadarśanāt tat sāhasamātram'/* (p. 184).

Omissions in M (4):

There are four new omissions in M, viz. of *kev, gurd, rañk* and *sel,* from which that of *kev* is shared by S also.

There are no real omissions in H, except that he omits the group of roots *jarc, jharc,* etc. (*paribhāṣaṇe*) and retains it only in the sixth, which his predecessors had read in both the classes. In this he is followed by V also who does the same thing with three more roots, viz., *uñch, ghūrṇ* and *sad.* Besides V drops *ay* (A) (evidently because he found it superfluous since he reads *ay* (U) with some others), 2 *laḍ* and 1 *vaṇṭ,* this last omission being shared by S also. Lastly, S has three omissions peculiar to him, viz. of *daṅgh, srai* (for which apparently he reads *śai*) and 1 *hreṣ.*

These are, then, the important cases of omissions of the roots of the first class in the different dhātupāṭhas. Besides these, two more cases pertaining to the roots of other classes have to be mentioned. The one is that of the Vedic roots (read in the classes III and V) which have been dropped in the dhātupāṭhas of the Jain authors, viz., J Śā and H. It is interesting to see that they have not been dropped by Candra who was a Buddhist; nor by Vop. although he came as late as the 13th century. The omission, therefore, is a peculiarity of the Jains. Secondly, a number of roots in the tenth class, which have been read in all other dhātupāṭhas are not found in the C. Dh. There are only 105 dhātusūtras in the *cur-* class of the C. Dh. as against e.g. 395 of the P. Dh., or 269 of the Śā. Dh. Also, there is no indication of the sub-groups, although roots from these groups are met with sporadically. Thus only five roots (38, 64, 65a, 65b, 66) from the *ākusmīya* group, only two (67, 69) from the *carc-* group, only one[27] (5[b]) from the *āsvadīya* group, and only eight (47, 68, 72-77) from the *ā-dhṛṣīya* group (evidently regarded by C as *nitya-ṇijanta* since he does not read *anitya-ṇijanta* roots). Only in the *kathādi* we have a comparatively fair number of roots, viz. 34. It has been already mentioned in the chapter II that Kk and Kt do not read the optional curādi roots (*vikalpitaṇijanta*) on their own, but only on the authority of 'some'. It is this extreme disparity which makes Kṣīrasvāmin sound a note of diffidence at the beginning of the tenth class where, he says, even the veterans have met with their Waterloo (*curādir adhunārabdho yatra bhagnā mahārathāḥ*) on account of the corruptions in the traditional text, both as regards roots and their mean-meanings.[28]

27. That, too, in a different meaning.
28. *vyākhyāteyaṁ navagaṇī kuśakāśāvalambanāt/*
curādir adhunārabdho yatra bhagnā mahārathāḥ//
pāṭhe'rthe cāgamabhraṁśān mahatām api mohataḥ/
na vidmaḥ kiṁ nu jahimaḥ, kiṁ vātrādadmahe vayam//

If we restrict our attention to the new omissions of each school in the first class, it will be seen that after Pāṇini, only the first three dhātupāṭhas, viz., C J and Kk show a considerable number of omissions (33, 50 and 36 respectively) while the later schools are comparatively far less affected by this tendency, their omissions ranging from 3 to 9 only. Even as regards the sharing of older omissions, the later schools share a negligible small part of these — the number does not exceed four in any of the cases — with the notable exceptions of Kt which has 16 omissions common with Kk, and Śā which has 26 omissions common with J. Comparing the proportion of omissions of each school with its addition it will be seen that C has 33 omissions against 28 additions, J 50 against 47, Kk 36 against 564, Kt 6 against 6, Śā 9 against 6, Kṣ 5 against 36, M 4 against 6, H 3 against 5, V 6 against 29, and S 3 against 21. Here also it will be seen that excepting the abnormal case of Kk, the omissions slightly exceed the additions in the earlier dhātupāṭhas and that the proportion is completely reversed in the later works. If we leave out of consideration the peculiar cases of new additions and omissions (which at least in part owe their origin to personal vagaries and eccentricities) and consider only those cases which have been shared (wholly or partly) by the later works, then the proportion is : C 15 omissions against 19 additions, J 35 against 38, Kk 19 against 31, Kt 1 against 3, Śā nil against 3, Kṣ nil against 32, M 1 against 2, H 3 against 5, and V 1 against 2. Here it is seen that even in the case of the earlier dhātupāṭhas the omissions are less numerous than the additions. On the whole it seems that after the initial period of uncertainty was over the dhātupāṭhas settled down and adopted a policy of restoring old omissions besides adding new material to the old stock.

How are the omissions to be accounted for ? It is possible that some of the omissions might be quite unintentional. They may partly be due to accident but partly also to haplography. Thus, on the second alternative, it is not impossible in series like *aya vaya, paya, maya, caya, taya, ṇaya* or *aṇa, raṇa, vaṇa, bhaṇa, maṇa, kaṇa* etc. for individual roots to drop down. But these unintentional omissions must form only a small portion. We have, therefore, to look in some other direction to account for the intentional omissions. And since these reasons for omissions cannot be found in the dhātupāṭha itself, we have to turn to the commentaries for the same. Often the commentators remark in connection with certain roots (either read in the version commented by them or read by other authors) that they are unauthentic (*anārṣa*). If we study the reasons assigned by the commentators for regarding a particular root '*anārṣa*', we will probably get at the possible explanation of the omission of these roots in the other dhātupāṭhas. The following instances from the M. Dh. and the Kṣ will therefore be found instructive :

√*śuk*: On this S remarks that this root read by M appears to be unauthentic (*'anārṣa iva pratīyate'*) since the uṇādi sūtras derive the words *śuka* and *śukra* from the roots *śubh* and *śuc* respecitvely (Uṇ. 329 and 196). Had √*śuk* been an authentic one there was no need for the Uṇādi rules to connect these derivatives with *śuc* and *śubh*.[29]

√*rej*: According to Ś, this root read in some texts is probably unauthentic (*'anārṣa iva'*) since the form *rejate* can be looked upon as Vedic peculiarity and derived from the common root *rāj* as Bhaṭṭa Bhāskara does.[30]

√*ju*: S says that the reading of this root by Nandin looks like unauthentic (*'anārṣam iva pratīyate'*) since *ju* is declared to be a sautra root by the Vṛtti[31] and others.[32]

√*kṛ*: On this root read by some in the first class, S observes that it is *anārṣa* since Jinendrabuddhi and Haradatta regard forms like *karati* as being irregularly (*'vyatyayena'*) made with *'śap'*. Also the inclusion of *kṛ* in the rule *kṛ-mṛ-dṛ- ruhibhyaś chandasi* (P 3.1.59) would become superfluous since the Aorist forms like *akarat* would already be derivable from this *kṛ* itself with *śap* (although technically they would be Imperfect and not Aorist which difference, S. says, does not matter in the Veda).[33]

Kṣīrasvāmin similarly tells us that some regard the roots *pṛth* and *mrad* read by some in the *bhū-* class as *anārṣa* since the forms like *pṛthu* can be derived from the common √*prath* by saṁprasāraṇa (Un. 28), and the root *mṛd* in the 9th class is sufficient to explain the forms meant to be derived from *mrad*.[34] He also characterises the roots *and* and *uṅkh* as *anārṣa* without however stating any cause for it.

We see the reasoning behind the rejection of the roots which were suspected to be either unauthentic or of doubtful authenticity. Whenever the assumption of a root went against some statement or some procedure of the older authorities — a statement or procedure which would hint at the absence of such a root — then the reading of such a root was regarded as anārṣa, all the more so if the root concerned was not sufficiently supported. The fact that the Uṇādi sūtras derived the words like *śuka* from other

29. M. Dh., P. 58, lines 7-10.
30. M. Dh., p. 63, lines 20-21.
31. Cf. Kāśikā under P 3.2.150.
32. M. Dh., p. 185, lines 31-32.
33. M. Dh., p. 163, lines 27-31.
34. Under P. Dh. I, 802 a (p. 63).

roots like *śubh* indicated, according to the authorities like Sāyaṇa, that Pāṇini had not read $\sqrt{suk}$. Its presence, therefore, in some texts, must be unauthentic. When the Kāśikā and others declare $\sqrt{ju}$ as sautra, it automatically means that P. had not read it in his dhātup. If, therefore, some people read it, it must be regarded as unauthentic. This part of their textual criticism was thus based on inference. The cases like *rej* belong to a different category. There is nothing in the older grammatical literature against it, but the positing of it was thought to be superfluous since its purpose would be equally served, thought S and others, by deriving forms like *rejate* from the commonly accepted $\sqrt{rāj}$ — particularly because forms like *rejate* are restricted to the Vedic language. This is thus more or less a case of *'lāghava'* — of dispensing with a thing which, though useful, was not deemed absolutely indispensable. (After all, the grammarians might have thought, they were not denying the facts of the language. The difference of opinion concerned only the technical aspect, viz. how the linguistic facts were to be explained. It was, accordihg to them, a relatively minor affair whether *rejate* was derived from *rāj* or *rej* [it was like choosing between Tweedledum and Tweedledee] probably because, in the ultimate analysis, it was the *akhaṇḍadaṇḍāyamāna Sphoṭa* which alone had a real existence, the analysis into stems [or roots] and endings being purely theoretical).[35]

This was, then, the logic behind the rejection of roots. Whether we approve of it or not is a different thing. While we may agree that the positing of *śuk* can be dispensed with, it is quite probable that P had actually read this root, since it is attested independently by Kṣ and M and also supported by C and others. Since the Uṇādi sūtras come from a different author, their view has no binding effect in the matter of the P. Dh. Similarly *rāj* and *rej* are two different things and C was certainly right in introducing it. (Its absence in P. Dh. is unfortunate). But, as I said, that is a different story. Our proper task is only to see how things stand. And anyway it has had considerable effect upon the later texts. It is thus interesting to note that all the above mentioned roots regarded as anārṣa by S are conspicuous by their absence in the dhātup. as given in the Siddhānta-Kaumudī which generally follows M. Dh. in this respect. And

35. Thus, commenting on *'goma upalepane'* (P. Dh. X, 330), Kṣ. remarks: *prakṛti-pratyayavibhāgasya kālpanikatvāt kasmiṁścit kāle gomād* (i.e. from $\sqrt{goma}$) *gomaya-siddhiḥ/ adyatve tu goś ca purīṣe'* (P 4, 3, 145) *mayaṭ/ evaṁ kumārādāv anumantavyam/*. On another occasion also Kṣ refers to the *kālpanikatva* of the *prakṛtipratyayavibhāga*, for which see Ch. VIII, footnote 21.

this gives us a clue for understanding other omissions for the reasons of which we have no direct evidence.

An interesting point to note is that generally when S characterises a root as spurious or unauthentic, he does not call iit categorically anārṣa, but says that it is 'probably' anārṣa' (*anārṣa iva*) or 'it looks like anārṣa' (*anārṣa iva pratīyate*). This shows that he was not dogmatic about these things. Also whenever there is difference of opinion in the authorities he generally follows the consensus of opinion. Thus he says that he reads 2 *sac* (U) because it is accepted by many like the Nyāsakāra (*Nyāsakārādīnāṁ abhimatatvāt*);[36] that he reads *uṅkh vaṅkh* etc. (not read by M) on the authority of many other commentators (*Itarānekavyākhyātṝṇāṁ prāmāṇyāt*);[37] that he reads *bhrāj* with the anubandha *ṭu* because that was the text which was accepted by many (*'ayam eva pāṭho bahūnāṁ saṁmataḥ'*),[38] and so on. Vop. also describes his dhātup. as *sarvasādhāraṇa'* (Kkd. 3[b]) where, as Durgādāsa tells us the word *sarva* really stands for *bahu*.[39] In this matter of difference of opinian Kṣ also has expressed an admirable sentiment which, though concerning not the roots but the meaning is here worth noting. Having quoted the dissenting view of Kauśika on the meanings of the roots *dad* and *dadh*, he goes on saying: 'As regards the admissibility or otherwise of this, it is for the wise to judge. As for us, we are content with merely presenting the different opinions (or, pointing out the difference of opinion). Who are we to call in question the statements of the great masters? (*yuktāyuktatve tv atra sūrayaḥ pramāṇam / vayaṁ hi matabhedapradarśanamātreṇaiva kṛtārthāḥ / munimukhyānāṁ*[40] *vākyaṁ kathaṁkāraṁ vikalpayāmaḥ ?*)'.

It has been repeatedly remarked in these pages that the actual usage of the language — the *śiṣṭaprayoga* — was the ultimate authority with the ancient Sanskrit grammarians. It can be therefore reasonably expected that variations or differences of opinions in the roots also were settled with a reference to the facts of the language. And here again it is the Puruṣakāra — the work which has consistently championed the cause of the

36. M. Dh., p. 202, lines 3-4 from the bottom.

37. M. Dh., p. 59, lines 17-18.

38. M. Dh., p. 142, lines 25-28.

39. *'sarveṣāṁ sādhāraṇaḥ samānaḥ sarvasaṁmatatvāt/ sarvaśabdas tviha bahuvādiparaḥ, tena kṛñ kṛtau* (cl. I) *ityādīnāṁ kaiścid amanyamānānām api bahuvādisaṁmatatvād ihopanyāsaḥ; ku-ṅ gatyām ityāīnāṁ ca kaiścin manyamānānām api bahuvādyasaṁmatatvat tadvarijanam iti'/*

40. The passage is quoted in the Puruṣakāra (p. 13) also where we read *muniprakhyānāṁ* for °*mukhyānām*.

śiṣṭaprayoga — which has expressed in the most emphatic terms that the actual usage of the language is the soul arbiter in this respect. It says

Pāṭhā vyākhyāś ca dhātūnāṁ dṛśyante svairiṇaḥ kvacit/
prayoga eva bhagavāṁs tān vyavasthāpayet pathi//[41]

What greater appreciation of the value of *prayoga* could be imagined ?[42]

41. p. 13.

42. There are many other kinds of variations. Thus some of the roots beginning with *s* (1 *sarj, sādh, sāntv,* etc.) are read by some with *ṣ* (*ṣopadeśa*), but not by others; some of the roots beginning with *n* (*nakh, l naṭ, nay,* etc.) area read by some with *ṇ*, but not by others; also, some roots (1 *iṣ, l sidh, bhrāj,* etc.) are read with some anubandhas by some, while the others read these roots without those anubandhas. There is a very small number of cases of difference over the voice: *eṭh, heṭh, al, ḍimbh,* etc. Lastly there is a fair number (over two dozen) of variations regarding the class to which the root is to be assigned (in the actual practice this does not make much difference: whether e.g. *laj, lajj, jarts, unch* are read in the first or in the sixth class: and in the case of roots like *dhinv, kṛṇv, śru* etc. the necessary provision is made in the sūtrapāṭha). It was not possible to handle these topics within the limited scope of this work; and, in some cases at least, it was neither necessary.

CHAPTER X

CONCLUSION

X

CONCLUSION

Certain points of a broad nature and general importance, which have emerged from the discussion in the preceeding chapters, may be briefly re-stated here by way of summing up. The first point to be mentioned is the awareness, on the part of the grammarians, of the exact relationship between the language and the science of grammar. The language was the more important thing. It was an end towards which the grammar was a means; the language was the *lakṣya*, the grammar the *lakṣaṇa* and naturally it had to be based on the former (*'lakṣyamūlaṁ hi lakṣaṇam'*). The facts of the language were not to be questioned, for they were self-valid (*siddha*). Why a particular root should have only a limited number of forms (*niyata-viṣaya*), or why a particular root should mean this thing only and not that, or have only a particular shade of a meaning and not the other — there was no explanation for it, except that it was just the nature of that root (*svabhāva* or *svābhāvya*). The grammar had to take the language as it was and had to analyse (*vyā* $\sqrt{kṛ}$) it.

Since a language is always changing, in however small a measure, the grammarians had to see to it that their technical system did not become rigid, but was elastic enough to accommodate innovations. Whereas it was not difficult for the younger schools to absorb new material, the Pāṇinians and the followers of other older schools could do it by looking upon the listing (of both roots and meanings) as only illustrative (*nidarśana* or *upalakṣaṇa*) and not exhaustive, or by treating certain classes as open lists (*ākṛtigaṇas*), or by appealing to the authority of Patañjali (*Bhāṣyakāra-vacanāt*) or some other master; and even where all such technical devices failed, the actual usage, the *śiṣṭa-prayoga*, was always an authority in itself. That was the final authority which one had always to consult without pinning oneself down to the grammatical text alone (*'lokāt sūribhir atyūhyam'* and *'na punaḥ pāṭha eva śaraṇam'*). And the adage *'prayoga-śaraṇā vaiyākaraṇāḥ'* is well known enough.

Coming to some of the individal results, we saw that the roots were not looked upon as something having a real existence; they were only theoretical abstractions (*prakṛti-pratyaya-vibhāgasya kālpanikatva*). Nor does it seem that all of them were regarded as absolutely ultimate or irreducible. Whatever phonetic unit, characterised by a certain meaning, served as a basis for the inflectional and derivative suffixes and thus formed a nexus of a family of words was a dhātu (*'dhātutvāl laḍādayaḥ'*). And apart from the avowedly secondary roots (*sanādyantā dhātavaḥ*), even some of the so-called primary roots (*bhūvādayo dhātavaḥ*) like *mokṣ*, *jāgṛ* etc.

were also known to be of a derivative nature. It was noted that not all the roots were equally productive and that certain roots were in some way deficient; either they required substitutes in certain systems, or had only nominal derivatives and no finite forms (*'nā tiṅviṣayāḥ'*), or had only a limited number of such forms (*'na sārvatrikaḥ'*), like *ghas, vac,* etc. Also the fact that some roots occurring in the Veda (*chandasi*) had later become obsolete and that, on the other hand, some new roots had appeared in the spoken language (*laukika*) had been observed. Lastly, the grammarians had also noted that in the case of certain roots verbal forms alone were in use in certain parts of the country and derivatives alone in others; or that a root could be current in one meaning in some locality, and in a different one in another (cf. *'tat-taddeśādiprasiddhārthānāṁ pṛthaṅnirdeśaḥ'* Kṣ under P.Dh. I, 637-638). It shows that the consideration of the time-space context, however hazy, was not quite unknown.

That Pāṇini should have instinctively sensed the presence of a sibilant in the roots *majj* and *bhrajj* had already been a matter of admiration; and the statement of roots in diphthongs like *gai styai* etc. though rejected by scholars like BR and Wh., has now generally been restored as more faithfully representing the original ablaut scheme. I think that the statement of roots in *-urv* (*turv, jurv,* etc.) should similarly prove to be historically more truthful than that with a long *ū* (*tūrv, jūrv,* etc.). Lastly it is worth considering further the grammarians' view that the penultimate nasal of a root, though actually appearing in various forms, was at bottom a dental one.

As regards the meanings of the roots, the definitions were not meant to be logical or scientific. In order to justify the inclusion of a particular vocable in the dhātupāṭha, 'some' action connected with it had to be shown (*'kriyāvācitvam ākhyātum'*)—that is all. It is not, therefore, the fact that a large majority of the definitions are not scientific, but rather that some portion of them should be scientific or real—it is that which should be surprising. The doctrine of the *dhātūnām anekārthatva* must have been originally meant only to bring out the illustrative character of the arthapāṭha and as a warning against being exclusively guided by the definitions of the dhātupāṭhas. But later on some people seem to have understood it as denoting that any root could have almost any meaning and they misused it (along with the *bāhulaka*) and indulged in fanciful etymologies (where, as the jibe goes, consonants counted for little, and vowels for nothing!). Thus the necessity of always having an eye on the actual usage of the language, which was implied in the *upalakṣaṇa* character of the arthapāṭha, was in such cases almost lost sight of. That, however, is a different thing.

It is impossible to do full justice to that most intricate and subtle technical apparatus consisting of the Anubandhas, ingenious groupings and

other devices invented by the ancient Hindu grammarians. Though more a museum piece today, the tremendous amount of practical utility which it yielded in those days by securing utmost brevity — which was the paramount consideration — is probably unparalleled anywhere. Armed with the various code-letters and accents, and positioned in a particular setting of groups and sub-groups, a root not seldom presents almost its entire peculiar verbal system in miniature. Though a beginner will find this apparatus a hopelessly insuperable barrier at first, once he is initiated into and becomes at home with its workings he cannot fail to be impressed by the imagination displayed in its conception and the superb skill with which it was executed.

While in estimating the value of the grammatical texts like the dhātupāṭhas the need to be generally guided by the existing independent literature is quite evident, an over-emphasis on it should be avoided. We must think twice before calling any of the grammarians' teachings as 'fictitious' because we will be basing our judgments on the sole evidence of a chance survival of only a small fraction of the literature known to the grammarians 2500 years ago, and of a language which the grammarians used in daily speech and writing. This is all the more so since after BR and Wh wrote their works, new material which was either unknown or not available to them has been steadily growing. Whitney's *Roots*, therefore, has to be brought up-to-date, and it would be a good idea if somebody undertook it.

We saw that the Dhātupāṭha did not remain in a stagnant condition. With each new system it has undergone some revision. Besides arranging it in a more orderly and more systematic way, each new system has something to add and something to drop, — the tendency on the whole being to preserve what had been handed down and to make fresh contributions in the light of new researches. The fact that even purely Vedic roots have been discovered and given their due place in the dhātup. by the later schools shows, as KATRE has rightly indicated, that the grammarians were not 'merely armchair philosophers weaving out of their imagination phantastic forms' but were engaged in continuous researches.

This is not to suggest that the dhātupāṭhas are absolutely free from defects. No human work is. But no useful purpose will be served by emphasizing these. And secondly, if even WHITNEY, working at the close of the 19th century with all the modern tools and appliances at his command, felt himself justified in expecting that his errors 'will be viewed with a reasonable degree of indulgence, considering the novelty and the extreme laboriousness of the undertaking', how much more this indulgence is due to the ancient Hindu grammarians who, working centuries before the Christian era without any such paraphernalia at their disposal, were not only the pioneers but proved to be the world's earliest masters in the science of descriptive grammar?

BIBLIOGRAPHY

A.B. = *Aitreya Brāhmaṇa*, ed. M. Haug, Bombay, 1863.

Ac = *Ākhyātacandrikā*, pub. Jaya Krishna Das Haridasa Gupta, Chowkambha Sanskrit Series, Benares, 1936.

Amara = *Amara's Nāmaliṅgānuśāsanam* with the commentary of Kṣīrasvāmin, ed. Dr. Hara Dutt Sharma, Poona, 1941.

Bcar = *Buddhacarita*, ed. E. H. Johnston, Calcutta, 1936.

Belvalkar, S. K. — Systems = *Systems of Sanskrit Grammar*, Poona, 1915.

Bh. = *Bhāṣya*, i.e., the Mahābhāṣya (text), ed. Kielhorn, 2nd ed., Vol. I, 1892, Vol. II, 1906, Vol. III, 1909. The commentaries Pradīpa and Uddyota as published in the N. S. Press, 2nd ed.

Bhattacharya, Ram Shankar: Some unknown Senses of the Plural Number as shown by pāṇini, *Journal of the University of Bombay*, Vol. XXIII (New Series), part 2.

BM or *Bālam.* = *Bālamanoramā*, Chowkhamba Sanskrit Series, Benares, Vol. I, 2nd ed. 1948; Vol. II, 2nd ed. 1949.

Bohtlingk, Otto = his two editions of *Pāṇini's grammar*; 1. Bonn 1839-40; 2. Leipzig 1887.

Burroow, T: *The Sanskrit Language*, London, 1955.

Candra-Vṛtti, ed. B. Liebich, Leipzig, 1918.

Candra-Vyākaraṇa, ed. B. Liebich, Leipzig, 1902.

Chakravarti, P. C.: *The Linguistic Speculations of the Hindus*, Calcutta, 1933.

Chatterji, K. C.: Technique = *Technical Terms and Technique of Sanskrit Grammar*, Part I, Calcutta, 1948.

Daiva (together with its commentary PK = *Puruṣakāra*), Trivandrum Sanskrit Series, 1.

Delbruck, B.: *Introduction to the Study of Language*, Leipzig, 1882.

Dhpr. = *Dhātupradīpa*, ed. Srish Chandra Chakravart, Rajshahi, 1919.

Dh. or *dhātup.* = *dhātupāṭha* (An account of the different editions of the various dhātupāṭhas will be found in the relevant foot-notes of Chapter II).

Dśk. = *Daśakumāracarita*, Bombay Sanskrit and Prakrit Series, Nos. X and XLII, revissed in one volume by G. J. Agashe, 2nd ed. Bombay 1919.

Durghaṭa-Vṛtti, ed. L. Renou, Paris, Vol. I, 1940-42; Vol. II 1945-1954.

Edgren, A. H.: *On the verbal Roots of the Sanskrit Language*, JAOS, 11.

Ghosh, Batakrishna: *Linguistic Introduction to Sanskrit*, Calcutta, 1937.

——— Aspects of pre-Pāṇinian Sanskrit Grammar, *B.C. Law Volume I.*

Gray, L. H.: *Foundations of Language*, New York, 2nd printing, 1950.

Harṣ = *Harṣacarita*, ed. K. P. Parab, N. S. Press, Bombay, 5th ed., 1925.

Jespersen, O.: *Language, its Nature, Development and Origin*, London 1928.

Kāś. = *Kāśikā*, ed. Pandit Balashastri Ranade, 2nd ed., Benares, 1898.

Kāśikā-Vivaraṇa-Pañjikā (or Nyāsa), ed. Srish Chandra Chakravarti, Rājshahi, 1913-1925.

Kātantra, ed. J. Eggling, Bibliotheca Indica, Calcutta, 1874.

Katre, S. M.: *Hist. Ling.* = *Some Problems of Historical Linguistics in Indo-Aryan*, pub., the University of Bombay, 1944.

Kr = *Kavirahasyam*, ed. V. A. Kshirasagar, Bombay, 1889.

Kṣīrataraṅgiṇī, ed. B. Liebich, Breslau, 1930.

Kuiper, F. B. J.: *Die Indogermanischen Nasalprāsentia*, Amsterdam, 1937.

Liebich, Bruno: *Einführung* = *Zur Einführung in die indische einheimische Sprachwissenschaft*, Heidelberg, *II Historische Einführung und Dhātupāṭha*, 1919; *III Der Dhātupāṭha*, 1920.

——— *Matarialien zum Dhātupāṭha*, Heidelberg, 1921.
——— *Pāṇini*, Leipzig, 1891.
LUDERS, H.: Kātantra und Kaumāralāta, Philologica Indica, pp. 659-721, Göttingen, 1940.
MACD(ONELL, A. A.): Ved. Gram. = Vedic Grammar, Encyclopaedia of Indo-Aryan Research, Vol. I, part 4.
Mangala Deva SHASTRI: The relation of Pāṇini's Technical Devices to his Predecessors, *Proceedings of the 4th Oriental Conference*, Vol. II, pp. 469-472.
MBh. = *Mahābhārata*, pub. Bhandarkar Oriental Research Institute, Poona.
M (or *Mādh.*) *Dh.* = *Mādhavīya Dhātuvṛtti*, ed. Pandit Anant Shastri PHADAKE, pub. Jai Krishnadas Haridas Gupta, Chowkhamba Sanskrit Series, Benares, 1934.
MIMAMSAKA Y.: Itihāsa = *Sanskrit Vyākaraṇa Śāstra kā Itihāsa*, Benares, 1950.
Nigh. = *the Nighaṇṭu* (as in L. Sarup's ed. of the Nirukta).
Nir. = *The Nirukta*, ed. L. SARUP, The University of Punjab, 1927.
PATHAK, Pandit Shridharshastri, and CHITRAO, Pandit Siddheshvarshastri: *Word Index to Patañjali's Vyākaraṇa-Mahābhāṣya*, Poona, 1927.
PAWATE, I. S.: Structure = *The Structure of the Aṣṭādhyāyī*, Hubli.
PISANI, V.: A Note on Āpiśali, *Journal of the Oriental Research Institute*, Baroda, Vol. 5, No. 3.
RAJAVADE, V. K.: *Yāska's Nirukta*, Government Oriental Series, Bombay.
RENOU, L.: *Grammaire Sanscrite*, Paris, 1930.
——— *Études de Grammaire Sanskrite*, premiere série, 3. "Les 'innovations' de la grammaire de Candragomin", Paris.
——— *Terminologie Grammaticale du Sanskrit*, I, Paris 1942.
Siddha-Hemaśabdānuśāsanam, pub. Sri YASOVIJAYA, Benares Jain Pathashala, Benares, 1905.
SK. = *Siddhāntakaumudī*, ed. (along with Tattvab.) V. L. PANSHIKAR, N. S. Press, Bombay, 4th ed., 1908.
SUKTHANKAR, V. S.: *Die Grammatik Śākaṭāyanas*, Leipzig, 1920.
SURYA KANTA: *A Grammatical Dictionay of Sanskrit*, I, Delhi, 1953.
TARAPOREWALA, I. J. S.: *Elements of the Science of Language*, second ed., Calcutta, 1951.
TB. or Tattvab. = *Tattvabodhinī*, ed. V. L. PANSHIKAR, N. S. Press, Bombay, 4th ed., 1908.
THIEME, Paul: *Pāṇini and the Veda*, Allahabad, 1935.
VARMA, Siddheśvara: *The Etymologies of Yāska*.
Vā. or *Vārtt.* = *the Vārttikas of Kātyāyana* (as in Kielhorn's ed. of the Mahābhāṣya).
WACKERNAGEL, J.: *Altind. Gram.* = *Altindische Grammatik*, I, Göttingen, 1896.
WESTERGAARD, N. L.: *Radices Linguae Sanscritae*, Bonn 1841.
WHITNEY, W. D.: *Gram. or Grammar* = *Sanskrit Grammar*, 7th issue (1950) of the 2nd ed. (1889).
——— *Roots* = *The Roots, Verb-forms and primary Derivatives of the Sanskrit Language*, Leipzig 1885, lithoprinted in U.S.A., 1950.
WINTERNITZ, M.: *Geschichte* = *Geschichte der indischen Literatur*, 3. Band, Leipzig, 1920.
Yaś. = *Yaśastilaka Campū*, ed. Pandit ŚIVADATTA and K. P. PARAB, N. S. P., Bombay, I, 1901; II, 1903.

ABBREVIATIONS

(The abbreviations of names of works will be found in the Bibliography itself).

ABORI = Annals of the Bhandarkar Oriental Research Institute, Poona.

B. = Böhtlingk, (dhātup).

BR. = Böhtlingk and Roth (St. Petersberg Lexicon).

C = Candragomin.

Dgd. = Durgādāsa (a commentator of the Kkd.)

Dh. or *dhātup.*= dhātupāṭha.

dh (after a root) = a root peculiar to the dhātupāṭhas; not attested in the independent literature.

gr. = a formation taught by the grammarians, but not met with in the actual literature.

H = Hemacandra.

J = Jainendra.

Kk = Kāśakṛtsna.

Kkd. = Kavikalpadruma.

Kt = Kātantra.

Kṣ = Kṣīrasvāmin, Kṣīrataraṅgiṇī.

M = Maitreyarakṣita.

MW = Monier Williams (Sanskrit-English Dictionary).

P = Pāṇini.

S = Sāyaṇa.

Śa = Śarvavarman.

Śā = Śākaṭāyana.

V or *Vop.* = Vopadeva.

Wg. = Westergaard.

Other symbols are self-explanatory. In the case of abbreviations like P, C etc. (which stand for names of persons who were authors of both the sūtrap, and the dhātup.), the reference, if in three figures, points to the sūtrap.; if in two, to the dhātup.

N.B. :—In the case of Einführung and the grammars of Whitney and Macdonell, the references are to the paragraphs.

Rupees
MLBD
Rs 60.00

Barcode : 2040100072426
Title - Lun Lakhara In Panini
Author - Chand Kiran Saluja
Language - english
Pages - 125
Publication Year - 2003
Barcode EAN.UCC-13

LUṄ LAKĀRA IN PĀṆINI

(DERIVATIONAL PROCESS AND USE OF AORIST)

CHAND KIRAN SALUJA

AMAR GRANTH PUBLICATIONS
DELHI

ıediate past.

The present small research work discusses the derivational process of *lun lakāra* in *Astādhyāyī*

Pāninian grammar classifies verbal stems into ten types Aorist (luṅ lakāra) is one of these types and denotes an action which has a reference to a simple past

Some think that originally in Proto-Indo-European (PIE), the aorist has nothing to do with this sense, and a past sense could be expressed by means of an aorist stem only if it was supported by the augment. But in *Pāṇini's Aṣṭādhyāyī* the aorist has become simple past, when the action have taken place in the immediate past.

LUṄ LAKĀRA IN PANINI

(DERIVATIONAL PROCESS AND USE OF AORIST)

CHAND KIRAN SALUJA

Forwarded free of cost with the compliments of Kashiraja Sanskrit Sansthan, New Delhi

AMAR GRANTH PUBLICATIONS

DELHI

First Edition : 2003

© Author

Published by
AMAR GRANTH PUBLICATIONS
8 25, Vijay Nagar, Delhi-110009

ISBN : 81-87322-20-9
Price : Rs. 250-00

Typeset & Printed at
AMAR PRINTING PRESS
8 25, Vijay Nagar, Delhi-110009
Tel : 27252362

ACKNOWLEDGEMENT

"Let him, in order to understand this, take fuel in his hand and approach a Guru who is learned and dwells entirely in Brahman"

Because of my limitation of language, knowledge and ways of expression, I am unable to find words to express my indebtedness to my Gurū Prof. PREM SINGH, Department of Linguistics, University of Delhi. The present work has taken its form under his affectionate painstaking supervision.

How can I acknowledge you, O' my guru, merely by simple words, for your kind love and affection, patience, lucid comments and the light shown to me.

I bow before thee, Sir.

I also cannot express my indebtedness, merely in simple words to my all teachers, Prof. A.K. Sinha, Prof. R.K. Agnihotri, Prof. K.V. Subbarao, Dr. R.C. Sharma and Dr. Ravindra Gargesh, in Department of Linguistics, University of Delhi.

I bow before you all, Sir.

I also owe greatest debt to all learned authors of the resource books for this work.

I am grateful to all members of Amar Printing Press, Vijay Nagar to beautifully beautify this work.

I am thankful to everyone who has halped me in any way.

Chand Kiran Saluja

Abbreviations

A	Aṣṭādhyāyī
AB	Aitareya-Brāhmaṇa
AV	Atharva-Veda Saṁhitā (Saunaka recension)
AVP	Atharvaveda Saṁhitā (Paippalāda recension)
ĀPŚ	Apastambha-Śrauta-sūtra
aor.	Aorist
GB	Gopatha Brāhmaṇa
H	Hitopadeśa
KS	Kāṭhaka Saṁhitā
LŚ	Lāṭāyana-śrauta-sūtra
M/Mbh.	Mahābhārata
MS	Maitrāyaṇī-Saṁhitā
MŚ	Mānava-śrauta-sūtra
Pres.	Present tense
Pl.	Plural
R	Rāmāyaṇa
RV	Ṛgveda-Saṁhita
ŚB	Śatapatha-Brāhmaṇa

ŚŚ	Śāñkhyāyana-Śrauta-Sūtra
ŚG	Śāñkhyāyana-Gṛhya-Sūtra
Sing	Singular
SV	Sāmaveda-Saṁhitā
TA	Taittirīya-Āraṇyaka
TB	Taittiriya-Brāhmaṇa
TS	Taittirīya-Saṁhitā
VS	Vājasaneyī-Saṁhitā (Mādhyandina recension)
VSK	Vājasaneyī-Saṁhitā (Kāṇva recension)
Vāit	Vāitāna-Sūtra

Contents

Acknowledgement *iii-iv*

Abbrevations *v-vi*

I. Introduction 1-36

II. A. Pāṇini's Process of Derivation 37-69
B. Explanation of Sṁtras For Derivation of Luṅ Lakṅra

III. Varieties and Forms of Luṅ Lakṅra 70-89

IV. Conclusions 90-106

Bibliography 107-111

Chapter-I

Introduction

In Sanskrit, a past action is denoted by three tenses;

the Imperfect (*Laṅ Lakāra*)

the Perfect (*Liṭ lakāra*)

the Aorist (*Luṅ lakāra*)

Thus, Aorist[1] is one of these three past forms which has a reference to a past action in general, without reference to any particular time, whereas Imperfect past[2], in Sanskrit, refers to the sense of the past before the commencement of the current day and Perfect past[3], refers to the sense of the past before the commencement of the current day and unperceived by the narrator.

It is thought, in general, that each of these three tenses had a signification of its own and was used in its proper sense in ancient writings but later on when Sanskrit ceased to be a spoken language, the exact senses of these tenses were lost sight of and writers began to use them

---

1. *luṅ* (A.3.2.110)
2. *anadyatane laṅ* (A.3.2.111)
3. *parokṣe liṭ* (A.3.2.115)

promiscuously, so that now any of these may be used to denote past time with certain limitations[1].

Discussing the position of Aorist, Bhandarkar remarks that "the so called aorist expresses simply the completion of an action without reference to any particular time, or a recent or this day's action. It is similar to the English Present Perfect which is defined as an action as having happened in a portion of time which is not yet expired. It brings a past action into connection with the present time"[2].

The other name given to it, by westeren scholars, is **Third Preterite.**

Monier Williams observes that although the three past tenses are used without much distinction, yet it should be observed, that they properly express different degrees of past time[3].... the aorist refers to an event done and past at some indefinite period, whether before or during the current day; it corresponds in form and sense to the Greek 1st and 2nd aorist, and sometimes to the pluperfect. He further remarks "the fact is, that the three past tenses are not very commonly used to represent the completeness of an action. This is generally done by employing the Past Passive Participle with an instrumental case; or by adding *vat* to the Past Possive, and combining it with the Present tense of as, 'to be' as, *uktvān asmi*, 'I have said.[4]"

---

1. M.R.Kaley; A Higher Sanskrit Grammar; p.521.
2. Second Book of Sanskrit; p.154.
3. A Practical Grammar of Sanskrit Language: p.134.
4. Second Book of Sanskrit; p.ix

Bhandarkar notes that aorist indicates past time; the imperfect shows a past action done previous to this day; and perfect, a past event which took place before this day, and which was not witnessed by the speaker. The first *sūtra* ***luṅ*** (A. 3.2.110) gives a general rule, the second ***anadyatane laṅ*** (A.3.2.111) is an exception to it, and third an exception to this again; the past time, therefore, left according to *Pāṇini's* system of rules and exception for *'luṅ'* to indicate, is *adyatan,* that is to say, this day's, *luṅ* can also by these *Sūtras* indicate past time generally, i.e. express simply the completion of an action without reference to any particular past time. He further adds that by another *sūtras*:

nānadyatanavat kriyā prabandhasāmīpyayoḥ (*Pāṇini,* 3.3.135) *luṅ* express recent and continuous past action in addition.

Thus according to *Pāṇini, luṅ lakāra* indicates:

1. Past time generally

2. the past time of this day and not previous to this day and

3. recent past time.

Bhandarkar observes in *Aitareya Brāhmaṇas,* wherever stories are told, the so called imperfect or the perfect is always used, and the Aorist never occurs. On the contrary, when the persons in the story are represented as speaking with one another they use Aorist. Discussing the reason for it, he says that there is no scope for recent past time in mere narration, and things that have just or

recent occured can come to be spoken of only when persons are talking with each others[1].

Further remarked that the language of this *Brāhamaṇa* is very rich in verbal forms, and especially of the Aorist and follow the rules of *Pāṇini* except in few cases. He gives the following list of the forms of this tense[2]:

ajani	*avocat*	*mā dṛthāh*	*akrata*
abhūta	*abhākta*	*aduh*	*adīkṣiṣṭa*
apatsata	*abhākṣuḥ*	*ādıta*	*mā pāt*
akar	*avocan*	*avākṣiḥ*	*avocah*
mā duṣat	*ājñāsthāḥ*	*agrahīt*	*avocama*
āpāma	*ājñāsama*	*acārīt*	*ajaīṣih*
adarśama	*āsiṣata*	*ahaūṣīt*	*adrukṣaḥ*
mā parigāta	*astrta*	*avocat*	*mā gāta*
adṛpat	*adāt*	*agāsīt*	*ajñata*
abhū	*avadhīt*	*aśaṅsīt*	*avādīḥ*
avadhīh	*ajījanat*	*ayākṣīt*	

It is assumed that only five forms, *ajñata; akrata; akar; ājñāsam* and *amukṣah* do not conform to the rules laid down by Pāṇini. Accordingly Aorist should never be used in narratives.

Commentator *Kauṇḍabhaṭṭa* in his work *'Lakārārtha nirṇaya* comments on *luṅ* as:

luṅarthamāh bhūtamātre iti. bhūte ityadhikāre 'lun' iti sūtrāt. yathā 'abhūt' ityādiatra vidyamāna dhvaṁsapratiyogitvaṁ bhūtatvam. tacca kriyāyām

---

1. Second Book of Sanskrit; p.vii
2. Second Book of Sanskrit; p.xiii

nirbādhamiti vidyamāne api ghaṭe 'ghaṭo abhūt' iti prayogaḥ.

(Now the author) states the meaning of Luṅ, (with the words) 'in the sense of past in general,' on the strength of the rule *luṅ*, which occurs, under the leading *bhūte*, For example, (the form) *'abhūt'* 'became,' 'happened'. Here (by) pastness (is meant), the property of being the counter positive of consequent absence at the present time. And this is no way incompatible with the action (in question), so that, even when a pot actually exists, one says (correctly) the pot came into being'. It is remarked that the property of being the counterpositive of the consequent absence existing now, has to belong to action and not to that which is the locus of action. Thus what really means is

vartamāndhvaṁsa pratiyogi kriyolakṣitatvaṁ bhūtatvaṁ:

pastness is characterised by an action which is the counter positive of the consequent absence existing in the present. It is due to this that the usage *ghaṭo abhūt* can be called correct, even when the pot in question which is the locus of the action of becoming is still in existence. It is the action of becoming which is past[1].

According to V.S. Apte "the aorist has reference to a past time indefinitely or generally, without reference to any particular time. An action done before today is expressed by the perfect or imperfect; whatever remains for the aorist is, therefore, to express a past action, done very recently, say in the course of the current day or

---

1. Jayshree A. Gune; The meaning of Tenses and Moods.

having reference to a present act. Aorist, therefore, merely implies the completion of an action at a past time generally, and also an action done at a very recent time, as during the course of this day. The imperfect and perfect are used in narrating events of past occurance, generally in remote past times where the aorist is used in dialogues and conversations which refer to recent past actions, but it is not used .to denote past specified time or to narrate events."[1]

Aorist, therefore covers simply a statement of a past action referring mostly to a recent occurance as during the course of the present day.

Vaiyākaraṇa Siddhāntakaumudīkāra Bhaṭṭojidikṣita, one of the commentator of *Aṣṭādhyāyī* explains the *sūtara* ***'Luṅ'*** (A. 3.2.110) as *bhūtārthavṛtteḥ dhātoḥ luṅ syāt* 'the affix *'luṅ'* may be employed after a root in the sense of the past generally.'

There are special and peculiar uses of *luṅ as māṅi luṅ* (A. 3.3.175) which means that when *luṅ* is employed with the particle *mā*, aorist displaces all other tenses and the sense is that of command. Thus *mā kārṣīḥ*[2] means 'don't do' According to *sūtra* ***smottare laṅ ca*** (A. 3.3.176) when the particle 'mā' is followed the particle *sma* both *laṅ* and *luṅ* are employed in the sense of command.

---

1. Quoted by S.C.Vasu in The *Aṣṭādhyāyī* of *Pāṇini* (Vol.I); p. 458.
2. The augment *a* is omitted by the *Sūtra: na māṅ yoge.*

By the *sūtra*, ***puri luṅ cāsme*** (A.3.2.122) when the word *purā* is used and *sma* is not used alongwith, *lun* is employed[1].

1. the augment *a* is omitted by the *sūtra na māṅyoge*

2. and also *laṭ* when the time involved is not the current day.

Bloomfield and Edgerton[2] report that the vedic poets show even greater keenness of feeling in their use of preterite indicatives especially, is this true of the Aorist, which is typically used to denote an accomplished fact within the range of the speaker's own knowledge, so that it is a favourite mode of confident assertion, especially of recent events. It is further added that although the imperfect, perfect and passive participle all appear commonly enough in interchange with moods, the aoritst is the commenest of all. This kind of aorist, especially common in the literature of magic and conjuration, has been called with some propriety 'prophetic aorist'. So some texts say:

ajñasā satyam upāgām

'I have speedily attained unto truth'

But the majority, nine in number, use an optative aorist :

ajñasā satyam upa geṣam

'May I speedly attain unto truth!'

---

1. and also *laṭ* when the time involved is not the current day.
2. Vedic Variants (Vol.I); p. 81-82.

And this variant is a valuable commentary on the aorist indicative of other texts; it really means only that such is the speaker's earnest and insistent desire. Sometimes the same test contains expressions with different verbal forms and which are close to each other types of expression.

Bloomfield and Edgerton in their study on Vedic Variants[1]' have observed a large number of variations of aorist forms and classified these variations as :

i) Aorist Indicative and imperative in principal clauses; e.g.

janiṣṭa (TS. *janiṣvā*, MS. *ṣva*) *hi jenyo agre ahnām* (RV. TS. MS. KS.)

'He has been (be thou) born, noble, at the break of days'.

sūryasya cakṣur āruham (VS. *āroha*) VS. TS. MS. KS. ŚB. Ap.S. M.S. 'The eye of *sūrya* I have mounted (mount thou)'

ii) **Aorist Indicative and Subjunctive in principal clauses.** e.g. *anu* (MS. adds *māṁ*, TA *vām*) *dyāvāpṛthivī* (MS. adds *anu me*) *amaṇsātām* (TA. also *maṇs*; MS. *maṇsā*; p.p. *amaṇsā*) VS. MS. SB. TA. (bis) ŚŚ. LS. 'Heaven and earth have favoured (shall favour) me'

pūṣā mādhāt (AV. *mā dhāt*, MS. *nā ādhāt*) *sukṛtasya loke* (AV. TS. MS. KS.)

'*Pūṣan* hath placed (shall place) me in the world of pious deed.'

---

1. A Study of Variants Reading in the Repeated Mantras of the *Veda*.

In this category they regard that 'there is, indeed, really nothing that can decide in such a case, whether to regard the augmentless form as a preterite or an injunctive; since, as we have now abudantly seen, the 'true' preterites may be used just as well as modal forms in any situation.'

iii) **Aorist Indicative and optative (Preactive) in principal clauses.** e.g.

devasya (*devasyāhaṁ*, VSK *devasya vayaṁ*) *savituḥ prasava (sava)... ruheyam* (G.B. *roheyam* VSK. *ruhema*) VS. VSK. TS. MS. KS. GB. ŚB. TB. Vait LS. Aps. MS... *aruham* VS. ŚB.... aruhāma VSK.

ādityа nāvam drukṣaḥ (AVPpp. *āruhaṁ;* SMB. *ārokṣam*) AV. SMB.; *sūrya nāvam āruкṣaḥ* AV. : *imāṁ su nāvam* (read, *sunāvam?*) *druham* TS. KS. Ap. *sunāvan āruheyam* VS.

'O sun, thou hast (I have) mounted the ship.' 'I have mounted (May I mount) this good ship,

iv) **Aorist indicative and Future in principal clauses,** e.g. *agniṁ sve yonāv* (VSK. MS. KS. *yonā*) *abhār* (Aps. *yonau bharişyaty*) *ukhā* VS. VSK. TS. MS., KS. ŚB. Apś.

'The pot hath borne (shall bear) *Agni* in her own womb.'

v) **Aorist Indicative and Desiderative in a principal clause**. e.g. *na yac chūdreṣv alapsata* (ŚŚ *alipsata*) AB. ŚŚ. "Which they (one) would not find (even) among *śudras.*" *alipsata* imperf. desid; *alapsata,* 3 pl. aor. ind.;

They observe that in quite a number of cases preterites of all sorts and modal forms interchange in dependent clauses. In RV 10.48.4;

purū sahasrā ni śiśāmi dāśuṣe, yan mā somāsa ukthino amandiṣuḥ

'Many thousands do I secure for my worshiper when the *soma* libations accompanied by songs of praise have incited me.'[1]

It is observed that aorist is here just as modal as the subjunctive; it is so called prophetic aorist which states a wish as an accomplished fact.'

The tense commonly remains unchanged, but sometimes, as in above example, it is shifted without any restrictions.

Bloomfield and Edgerton accept that it is hard to distinguish modal forms of the root-present and the a-present (aorist present) from the modal forms of the root aorist and the *a*-aorist[2].

In a few cases probibitives, normally augmentless aorists, vary with augmented forms of the same or a similar tense system, there is no change of meaning[3].

gaṇān me mā vi trīṭṛṣas (MŚ. *ṣaṭ*) TS. MŚ. : *gaṇān me mā vy arīriṣaḥ Vait.*

'Do not make thirsty (injure) my troops.'

Kern[4] notes that aorist is expressive of any past, either historical or acutal; '*akārṣam*' may be I did' and 'I have done'. Here actual past signified the such past acts as are so recent as not to have lost their acutuality at the time of their being related. According to him, the aorist is used side

1. Vedic Variants; p. 57
2. Vedic Variants; p.21.
3. Vedic Variants; p.93.
4. Sanskrit Syntax; p. 252

by side with the participles in '*-tavant*' and '*ta*'; (neither imperfect nor perfect are then available. "I have seen the man" is '*adrākṣam puruṣam*' or '*dṛṣṭavānasmi*', not *apaśyam* no *dadarśa*.

It has also been discussed that aorist may be translated by a present; 'as you say.'[1] In the archaic dialect of the *brāhamaṇa-granthās* etc. the aorist seems to serve exclusively for the actual past. Delbruck remaks that in such kind of works the aorist '*akrata*' is used in the historical sense. According to Kern, the contrast between the historical tenses and the aorist is so striking there that it cannot possibly overlooked by anybody who go through these writings[2]. It is further added that the most instructive passages are such, as mention the same fact twice, first when told by the author, afterwards when put into the mouth of one of the actors. in the historical account, we find the imperfect or perfect while the aorist is found in the ORATIO DIRECTA. Delbrück has given a great number of instances from the *Śatapatha* and the *Aitreya Brāhmaṇa*.

In fact, it is noted by the scholars that the aorist is used throughout the Sanskrit literature in both its **acceptations**, actual and historical. Instances of the historical aorist occur in the *Ṛgveda* though not many are recorded[3]. Macdonell[4]

---

1 Śāk.II; p. 38. (ed. *Tarkavāgiśa*)

2. Sanskrit Syntax; p. 253

3. It is commented over this fact that being the prayer book, it is not the fittest book from which to learn the historical style of a language. It may be common in epic poetry.

4. Vedic Grammar

and Whitney[1] give the detailed account of use of aorist in this prayer book and observe that afterwards it is no less frequent than the other historical tenses. But in easy proseworks and in compositions of rather simple style, the aorist is comparatively rare, and mostly it is limited to certain verbs occuring commonly, *as abhūt, agmat, avādīt*. Kern observes that in more elegant style, in the works of writers such as *Daṇḍin, Bāṇabhaṭṭa, Somadeva*. the aorist is employed as often and with as much ease as the other past tenses. Accordingly he remarks, 'for this reason, I am astonished at the statement that the aorist is 'seldom' employed in classic literature. Discussing the gist of the observations of Brugmann it is asserted that in the *Rgveda* there is no functicnal difference between present and aorist either in respect of aspect or in respect of recent and remote past[2]. It is remarked that Kurlylowicz also agrees with this point. Delbrük's observation is mentioned as, that in the oldest period the (augmented) imperfect refers to the remote, the (augmented) aorist to the recent and actual past[3]. But it is seen that the thorough examination of some large collections of text-places seems to show that things are much more complicated. Outside the system of the remote-past, the indicative of the aorist can state past events and refer to the previous past. The picture has been presented in a way that the imperfect is the usual form to speak of the mythical past, but the aorist may in narratives or descriptions of mythical or legendary events more or less

---

1. Sanskrit Grammar
2. Old Indian; p. 128
3. also Hoffman.

'dramatacally' alternate with it. It is observed that although many places are doubtful or far from conclusive, the tendency to distinguish between an 'aoristic' and an 'imperfective' aspect, though often completely absent, is indeed unmistakable[1]. In the oldest texts, the aorist refers too often to special cases, single detail, isolated occurances, is too often used in connection with processes which, though durative in nature, are viewed without regard to duration to be regarded as merely and purely temporal in character.

Roderick S. Bucknell[2] remarks that the aorist tense is said to be strictly appropriate only for events which have occured in the very recent past and/or which have present relevance; however, in practice it is fairly freely interchanged with the other past tenses; the imperfect and perfect.

Gonda[3] in his discussion over the verbal system of Sanskrit language, points that the difference between the present and the aorist stem is far from being generally carried through, beside stems characterised by one of the comparatively numerous present suffixes (*-ya-*, *-aya-*, *-cha-* etc) or by the aoristic *-s-* there are also stems which are devoid of any formal characteristic : *a- tir-a-t* functions as an imperfect because of the existence of a present indicative tir-a-ti, but a-ruh-a-t is an aorist, because there is no corresponding form with primary endings (**ruh-a-ti*).

---

1. Old Indian; p. 129
2. Sanskrit Manual; p. 50
3. Old Indian; p. 87

Gonda concludes that these and other unsystematic features may induce us to assume the existence, in a previous period, of a single present-aorist formation, which in course of time must have been differentiated. It is argued by some scholars that there was no functional difference between present and the aorist in *Ṛgveda*, either in respect of aspect or in respect of recent and remote past[1].

Dr. Murti[2] pictures the position as, the difference between present and aorist is primarily semantic and not morphological. Aorist denotes simply occurance, without any reference to time. The aorist and present are of two different types expressing two aspects of action. The present roots are expressive of process of action like going, seeing, and aorist roots are expressive of action itself like reaching, finding. So the difference between the present and aorist is not temporal but it lies only in the aspect of action. He further remarks that originally in Proto-(or Primitive) -indo-European, the aorist has nothing to do with tense, and a past sense could be expressed by means of an aorist stem only if it was supported by the augment. In *Pāṇinian* grammar the aorist has become a simple tense of past, used mainly when the actions have taken place in the immediate past.

Whitney discusses that the value of aorist is seen in the vedic language whereas in later classical sanskrit, imperfect, perfect and aorist are

---

1. Brugmann, Grudriss; Kurylowicz, J.; Delbruck.
2. An Introduction to Sanskrit Linguistics; p. 269

'indiscriminated' past tenses[1]. Burrow clearly mentions that the use of aorist in later classical sanskrit "dies out"[2]. Whitney claims that the aorist of the classical sanskrit is simply a preterit, equivalent to the imperfect and perfect, and frequently co-ordinated with them. According to him, no distinction of meaning has been established between the modes of present system and those of the perfect and aorist system.

According to Macdonell[3], the aorist is of frequent occurence in the vedas, being made from about 450 roots. It is noticed by the different scholars of Vedic and classical sanskrit that though the use of aorist is found very common in vedic sanskrit, specially in the *Ṛgveda*, but the number constantly decreases in the later vedic and classical sanskrit literature. It is less frequent in *Brāhamaṇas* and *Sūtras*, epics and classical literature.

Meenakshi[4] has discussed the following uses of aorist in *Mahaābhārata* and *Rāmāyaṇa* :

a) The aorist enoting the past time generally:

uttamain sabdam asrauṣaṁ tato romāṇi me, hṛṣan (M. 2.45.31)

'I heard those notes (repeatedly) and my hair stood on end;

sabhāryaḥ svargam agamat tapas taptvā bṛhadrathaḥ (M. 2.17.24)

---

1. Sanskrit Grammar; para 532
2. Sanskrit language
3. Vedic Grammar; p. 365
4 Epic Syntax; p. 163-164

'Having done penance, Bṛhadratha ascended to heaven along with his wife.'

rājā tridivam abhyagāt (R. 2.102.6)

'The king departed to heaven'

tato maunam upāgamat (R. 6.18.20)

'Then he became silent.'

b) The aorist denoting the past action done at a very recent time as during the course of the day or even implying the idea of continuousness.

kiṁ nu pūrvaṁ parājaiṣīt ātmānam ... (M. 2.60.7)

'Whom have you lost first, yourself...

tad akārṣīt prajāgaram (M. 5.33.10)

'that has produced sleeplessness.'

yaḥ śareṇaikaputraṁ tvam akārṣīr aputrakam (R. 2.64.52)

(Since) with one arrow you have, rendered me sonless-me who had only one son.

c) The aorist is used with prohibitive particle *mā* with the augment *a* dropped and then the sense of potential (expressing wish, curse, etc.) and imperative :

duryodhanasya pāruṣyaṁ tat tāta hṛdi mā kṛthāḥ (M. 2.65.10)

'remember not the harsh words of Duryodhana'

mā bhūt sa kālo yat kaṣṭam (R. 2.85.9)

'May the time never come when such wickedness appears in me.'

viṣādam mā kṛthā vīra (R. 6.101.27)

'Do not grieve, O hero.'

d) The aorist is used with *mā sma* also in denoting prohibition.

mā sma śoke manaḥ kṛthāḥ (M. 5.36.43)

'Do not grieve'

bharataḥ kārṣīl pretakṛtyam (R. 2.12.92)

'Let not Bharata perform only my obsequies when my life has departed.'

e) The aorist with *mā* is not restricted to prohibition. It is occasionally used as optative.

viṣam adyaiva pāsyāmi mā vaśaṁ dviṣatāṁ gamam (R. 2.30.19)

'I shall drink poision, this very day, but would on no account, submit to the will of enemies.'

Whitney accounts the use of aorist in classical sanskrit as :

Only twenty-one times in the *Nala*, eight in the Hitopadeśa, seven in *Manu*, six each in the *Bhagavad-gītā* and *Śakuntalā*, and sixty-six times. irom tourteen roots, in the first book, of about 2600 lines, of the *Rāmāyaṇa* :

Not only this it possesses no participle, nor any modes, except in the prohibitive use of its augmentless forms, and the preactive, while in the vedic language, the whole variety of modes belonging to the present and sometimes participles are found

According to Whitney[1] there is no distinction of meaning between the modes of the present-system and those of the perfect and aorist systems in older language. As a proper perfect it signifies

1. Sanksrit Grammar; p.328-330

something past which is viewed as completed with reference to the present. In general, it indicates what has just taken place; and oftenest something which the speaker has experienced. Thus, the aorist of the later language is simply a preterit, equivalent to the imperfect and perfect, and frequently co-ordinated with them, for example;

tataḥ sa gardabhaṁ laguḍena tāḍayāmāsa; tenā, sāu pañcatvam agamat (H.) thereupon he beat the donkey with a stick; and hereof the latter dıed; *tataḥ sā vidarbhān agamat punaḥ; tāṁ tu bandhujanaḥ samapūjayat* (MBh.) thereupon she went back to Vidarbha; and her kindred paid her revernce; *prītıṁān abhūt, uvāca cāı 'nam* (MBh.) he was filled with affection, and said to him; *tam adahat kāṣṭhāiḥ so 'bhūd dıvyavapus tadā* (R.) he burned him with wood, and he became then a heavenly form.

The aorist of the older language has the value of a proper "perfect" and signifies something past which is viewed as completed with reference to the present; and it requires accordingly to be rendered by the tense made with the auxiliary have.

For example; *párī 'mé gắm aneṣata páry agním ahṛṣata, déveṣv akrata śrávaḥ kà ımắṅ à dadharṣati* (RV.) "these here have led about a cow, they have carried around the fire, they have done honor to the gods--who shall venture anything against them?"

yám āíchāma mánasā sò 'yám á 'gāt (RV.) "he whom we (formerly, impf.) sought with our mind has (now, aor.) come;"

yénć 'ndro havíṣā kṛtvy ábhavad dyumy ùttamáḥ, idáṁ tád akri devā asapatnáḥ kílā 'bhuvam (RV.) "that

libation by which *Indra*, making it, became (impf.) of highest glory, I have now made, ye gods; I have become free from enemies."

Example from the *Brāhmaṇa* language are :

sá hā 'smiñ jyóg uvāsa... táto ha gandharváḥ sám ūdire : jyóg vá iyam urváśī manuṣyèṣv avātsīt (ŚB.) "she lived with him a long time. Then the Gandharvas said to one another, "this *Urvaśī*, forsooth, hath dwelt a long time among mortals";

índrasya vṛtráṁ jaghnúṣa indriyáṁ vīryám pṛthivī́m anu vy árchad tád óṣadhayo vīrúdho 'bhavan sá prajāpatim upa aṇavaa vṛtram me jaghnúṣa indriyáṁ vīryam pṛthivīm ánu vy ārat tád óṣadhayo vīrúdho 'bhūvann íti (TS.) of *Indra*, when he had slain *Vṛtra*, the force and might went away into the earth, and became the herbs and plants; he ran to *Prajāpati*, saying : "my force and might, after slaying *Vṛtra*, have gone away into the earth, and have become the herbs and plants";

svayám enam abhyudetya brūyād vrátya kvá 'vātsīḥ (AV., in prose passage) going up to him in person, let him say : "Vrātya, where hast thou abode"?

yád idā́nīṁ dvāú vivádamānāv eyátām ahám adarśam ahám aśrāuṣam íti yá evá brūyā́d ahám adarśam íti tásmā evá śráddadhyāma (ŚB.) if now two should come disputing with one another, (the one) saying "I have seen". (the other) "I have heard", we should believe the one who said "I have seen".

This distinction of the aorist from the imperfect and perfect as tenses of narration is very common in the *Brāhmaṇalanguage* (inclluding the older *Upaniṣads* and the *Sūtras*), and is closely observed; violation of it is very rare, and is to be

regarded as either due to corruption of text of indicative of a late origin.

In the Vedic hymns, thè same distinction is prevalent, but is both less clear and less strictly maintained; many passages would admit an interpretation implying either sense; and evident aorist forms are sometimes used narratively, while imperfect-forms are also occasionally employed in the aorist sense.

The boundary between what has just been and what is is an evenescent one, and is sometimes overstepped, so that an aorist appears where a present might stand, or was even rather to be expected.

Thus : *svāsasthe bhavatam indave na iti somo vāi rāje 'nduḥ somāyāi 'vāi 'ne etad rājña āsade 'cīkḷpat* (AB. i. 29.7) "be ye comfortable seats for our *Indu*", he says; *Indu* is king *Soma*; by this means he has made them (instead of makes them) suitable for king Soma to sit upon;

vāruṇī́r ā́po yád adbhír abhiṣiñcáti váruṇam evāí 'nam akar (MS. iv. 3.10) the waters are *Varuṇa's*; in that he bepours him with waters, he has made him *Varuṇa*;

pañcábhir vyā́ghārayati pāṅkto yajñó yā́vān evá yajñás tám ā́ladbhā 'tho yā́vān evá yajñás tásmād rákṣāṅsy ápahanti (MS. iii. 2.6.) he smears with five; fivefold is the offering; as great as is the offering, of it he has (thereby) taken hold; then, as great as is the offering, from it he smites away the demons. This idiom is met with in all the *Brāhmaṇas*; but it is especially frequent in the MS.

Gonda[1] thinks that in old Indian and prehistoric Indo-european the verbal category of mood was a means of intimating the speakers view or conception of the relation of the process expressed by the verb to reality, the main distinction being between what the speaker puts forward as fact (whether it is objectively true or not) and what he does not regard as such---a diversity of usages and idioms had come into existence, in which the use of the moods was more or less closely restricted to a particular function. Thus he thinks that some older grammars, e.g. Whitneys', do not include some paragraphs, on aspectual distinctions, is no matter of surprise'[2]. He believes that T. Burrow and Whitney are mistaken in saying that all past action is completed action, rather picture is more complicated. In the oldest texts the aorist refers too often to special cases, single detailed, isolated occurances, is too often used in connection with processes which, though durative in nature, are viewed without regard to duration to be regarded as merely and purely temopral in character. It may state a bold fact at its psychologically most relevant moment, or indicate that a process has reached its close[3], may be 'complexive' or 'recapitulative'. It can also denote isolated or momentary occurances taking place.

---

1. Old Indian, p. 125, 126
2. Because the problems connected with this category did not at that time attract much attention.
3 Old Indian; p. 129

VARIETIES AND FORMS OF AORIST

The aorist is classified into two classes :

A. Non-sigmatic aorist

B. Sigmatic aorist

These two classes are formed by seven different types of stems. Macdonell[1], classifies these seven forms in three categories :

I. Simple aorist

II Reduplicated aorist

III Sigmatic aorist

Benefey[2] takes these seven forms under two categories

I Simple aorists

II Compound aorists

According to him, the aorist has seven forms. But most verbs are restricted to one, some of two and very few of these to three[3].

Three of these seven forms are formed by personal terminations, the other four by compounding the verb with the three aorists, or the imperfect and two aorists, of the verb '*as*' as 'to be'[4]

In general, it can be concluded that there are seven main varieties of aorist, three non-sigmatic and four sigmatic.

---

1. Vedic Grammer (1910) p. 365-385
2. Practical Grammar of Sanskrit language(1868)
3. p. 112, para 125
4. p. 112, para 126

The endings of two of non-sigmatic and one of the sigmatic aorists are thematic (i.e. precisely similar to those of the imperfect of '*nī*')

The other types of aorist have athematic endings (comparable with the imperfect of athematic verbs but without the same pattern of strong and weak forms).

The seven varieties of the aorist are made by

i) adding 'a' either to simple or reduplicated roots and

ii) in case of non thematic conjugations, by adding either nothing or *-s-*, *-iṣ-*, *-siṣ-* to the roots.

These seven stems, therefore, are named accordig to their characteristics in the following way :---

A. Thematic Conjugations :

1. *a*-aorist
2. reduplicated aorist
3. *sa*-aorist

B. *A*-thematic Conjugations :

4. root-aorist
5. *s*-aorist
6. *iṣ*-aorist
7. *siṣ*-aorist

Dr. Ram Gopal[1] accepts the following order and names as per *aṣṭādhyāyī's* names :

vikaraṇa lug-luṅ (root aorist)

aṅ-luṅ (*a*-aorist)

---

1. Vaidik *Vyākaraṇa*-II

caṅ-luṅ (reduplicated aorist)
aniṭ-sij-luṅ (*s*-aorist)
seṭ-sij-luṅ (*iṣ*-aorist)
sak-seṭ-sij-luṅ (*siṣ*-aorist)
ksa-luṅ (*sa*-aorist)

According to him, about 250 roots have non-sigmatic forms, 200 roots have sigmatic forms and about 50 roots are found in different forms of aorist.

Monier Williams[1] considers it as complex and multiform tense, the most troublesome and intricate in the whole *Sanskṛt* verb, less used in classical *Sanskṛt* than the other past tenses, is not so much one tense, as an aggregation of several, all more or less allied to each other, and all bearing a manifest resemblance to the Imperfect.

According to Macdonell, the aorist is of frequent occurrence in the Vedas, made from about 450 roots. An augmented tense taking the secondary endings and forming moods and participles, it is distinguished from the imperfect by lack of a corresponding present (e.g. 3 sing. aor. *a-kar*, 3. sing. imp. *a-kṛṇot*, 3. sing. pres. *kṛṇoti*) and by difference of meaning *akar* 'he has done', *akṛṇot*, 'he did'.[2]

1. The **simple aorist** endings are added to the root either directly or with the connecting vowel *-a-*. It thus resembles the imperfect of the root-class or of the accented *a-* class. This type of aorist is formed by nearly 170 roots. Some nine

---

1. A practical grammar of the Sanskṛt language; p. 187
2. Vedic Grammar; p. 365

or ten roots have, beside the regular forms of the simple aorist, a certain number of other forms which have the appearance of indicatives present. They seem to represent a transition to the formation of a new present stem. The most striking example is the aorist stem *voca-* from which the 3. sing. *vocat* occurs several times.

2. The **reduplicated aorist** resembles the imperfect of the reduplicating present class and is, however, distinguishable from the latter not only in meaning, but by a certain peculiarity of reduplication and by being nearly always formed with a connecting *-a-* This type of aorist is taken by about 85 roots.

3. The **sigmatic aorist** inserts *-s-*, with or without an added *-a*, between the root and the endings. It is taken by rather more than 200 roots.

Thus each of the three types has one form following the analogy of the granded conjugation, and another following that of the *a-* conjugation. The sigmatic aorist has, however, further sub-divisions.

More than 50 roots take more than one form of the aorist. One verb, *budh-* 'wake', has even forms from five varieties of the aorist; from two of the first type, e.g. *a-bodh-ı* and *budha-nta;* from one of the second, e.g. *a-būbudh-a-t;* and from two of the third, e.g. *a-bhut-s-i* and *budh-i-ṣ-a-t.*

Roderick S. Bucknell[1] points out that with a few exceptions the endings of all the seven forms of aorist paradigms are constant throughout:

---

1. Sanskrit Manual (1994); p. 51

	Active			**Middle**		
3rd	*-t*	*-tām*	*-an/-uḥ*	*-ta*	*-ātām*	*-a(n)ta*
2nd	*-ḥ*	*-tam*	*-ta*	*-thāḥ*	*-āthām*	*-dhvam*
1st	*-am*	*-va*	*-ma*	*-i*	*-vahi*	*-mahi*

These endings are virtually identical with those of the imperfect:

	Active			**Middle**		
3rd	*-t*	*-tām*	*-an*	*-ta*	*-ātām*	*-ata*
2nd	*-ḥ*	*-tam*	*-ta*	*-thāḥ*	*-āthām*	*-dhvam*
1st	*-am*	*-va*	*-ma*	*-i*	*-vahi*	*-mahi*

The aorist further resembles the imperfect in having a prefixed a-. Though some aorist and imperfect versal forms are identical in form, but usually however, the two tenses are formally distinct;

Imperfect	**Aorist**	
sarati 'flow'	*asarat*	*asarat*
siñcati 'sprinkle'	*asiñat*	*asicat*
nayati 'lead'	*anayat*	*anaiṣīt*

The *a*-Aorist[1] variety

(Thematic endings; weak grade of roots)

Macdonell takes it as the form of simple aorist. This form is more frequent in AV than RV and is taken by nearly 60 roots, chiefly by such as contain a medial vowel[2]. This form of the aorist resembles an imperfect of the *a*-class. In general, this aorist consists of a number of roots

1. *'ari-lun'* (A. 3.1.52-3.1.59)
2. Macodnell (p. 3''1); A. 3.1.52-3.1.59

ending in consonants like *'sic' 'as' 'vac' 'lip' 'puṣ'* etc. A small number end in vowels, thus *ṛ, kṛ, sṛ, kyā, hvā, vyā, ṣvā, dā, dhā* etc.

According to Macdonell, the root generally appears in the weak form[1], the stem being made with an added '*-a*', which is unaugmented forms is normally accented. Middle forms are of rare occurance in this aorist[2].

Some irregularities also occur in the formation of the stem; Many are simply transfers of the root-aorist to an *a*-inflection Augmentless forms of this aorist are also available, with indicative and subjunctive values, like *vidat, vocata, bhujata* etc.

Modes of a-aorist are :

Subjunctive : *arāma, riṣama, sadāma* (Pl.I; Active)

Injunctive : *aram, khyam, darśam* (Active; Sing. I)

Optative : *āpeyam, gameyam dṛśeyam* (AV) (Active; sing. I)

Imperative : *kara, bhuja, muca* (Active, Sing. 2)

Participles : *tṛpant-, dhṛṣant, riṣant* or *rīṣant.*

Reduplicated Aorist[3] Variety

(thematic endings; root syllable light, reduplicated syllable heavy; sense normally causative)

---

1. Whitney, para 846(b)
2. A. 3.1.54; Whitney, Para 848.a
3. *cari-luṅ* (A. 3.1.48), '*abhyāsa*'.

In this variety, in great majority, stem is formed with a thematic *-a*, and a peculiar reduplication of the verb takes place.

It is generally associated with the secondary conjugation in *'aya'* (causative) but, as Macdonell perceives that it is not in form, with a few slight exceptions, connected with that stem, being made directly from the root, however, it is connected with the causative in the sense in as much as it has a causative meaning when the corresponding verb in -*'aya'* hás that meaning[1]. It is an augmented reduplicated form, therfore it has affinites with the imperfect of the reduplicating present class and with the pluperfect, but it is distinguished from the imperfect·

(i) by the long reduplicative vowel, (ii) by the thematic '*-a*' (which nearly always appears in the stem) (iii) oftenly by the meaning.

It is also distinguished from the pluperfect

(i) by the difference of reduplication when the root contains *'a'* or 'e' and (ii) often by meaning. Whitney mentions its characteristic feature as 'reduplication of the radical syllable[2]. With regard to quantity, this aorist aims at establishing a diversity between the reduplicating and radical syllable, making the one heavy reduplication and a light root syllable, i.e. *arīriṣam, avīvṛdham* etc.

It has been viewed by the scholars that 'rhythm' has been paid due attention in the reduplicative process. Though the stem of the

1. Vedic Gr. p.-373 (para-513)

2. –Para 857

most forms is made with a thematic '*-a* but, about a dozen roots ending in vowels have occassional forms from stems made without thematic '*-a*'[1].

Whitney claims that in the later language, a few roots are said by the grammarians to make this reduplicated aorist as a part of their primary conjugation : they are *'ṣri'* and *'ṣvi'*, *'dru'* and *'sru'*, *'kam'* and *'dhā'*[2]

The representative modes of this variety of aorist are :

Indicative : *ajījanam, ajījanas, ajījanat* (Active; Sing)

Subjunctive : *rāradhā, vocā* (Active; Sing. I)

Injunctive : *cukrudham, jījanam, dīdharam* (Active, Sing. I)

Optative : *voceyaṃ, voces, vocet* (Active, Sing.)

Imperative : *vocatāt, vocatu* (Active; Sing)

But no participle of this reduplicated aorist has been found[3]. Some irregular forms of the roots like *'rādh'*, *'vyadh'*, *'dip'* and *'mil'* are also found as-

radh>	*rirādh-*
vyadh>	*vividha-*
dip>	*didīpa-*
mil>	*mimīla-*

---

1. Macdonell, p. 374
2. A. 3.1.48
3. Whitney, para 872; Macdonell p-375

sa-Aorist[1] variety

(small class; suffix s with thematic endings; weak grade)

This variety of aorist is confined to a few number of roots[2] ending in *ś ṣ* or *h* having the vowels *ɪ u ṛ* at the penultimate. Macdonell takes it as, this form, in *Saṁhitās*, of the sigmatic aorist is taken by only nine roots, which end in j, *ś*, *ṣ* and h and contain the medial vowels *ɪ*, *u* or *ṛ*.

The infix *-sa-* is added to the unmodified roots, and the final consonant is reduced to k. Thus the stems of this aorist end in - *kṣa-*. The inflection is like that of an imperfect of the *a*-class of the first conjugation of the 6th class. The augment is sometimes dropped.

Fewer moods of this aorist are noted as :

Indicative : *avṛkṣam, adhukṣas* (Active; Sing.)

Injunctive : *dukṣas, mṛkṣas, dvikṣat* (Active : sing.)

Imperative : *mṛkṣatam, yakṣatām* (Active; dual)

No optative forms are found.

B. A-THEMATIC CONJUGATIONS

The Root-Aorist[3] Variety

(Small Class : athematic endings; *parasmaipada* only)

This variety of the aorist consists of a few roots ending in *ā* and the root *bhū*. According to Macdonell, this forms is taken by 100 roots (and

---

1. *ksa-luṅ (A. 3.1.45)*
2. Macdonell-'nine roots'; Whitney 'nineteen' (para 919)
3. *vikaraṇa-luk-luṅ*

more than 80 of these in the RV)[1]. It resembles the imperfect of the '*ad*'-class of the Present system. The endings are added directly to the roots because there is no infix to separate them. In later language, this formation is limited to a few roots, as indicated above, in *ā* and the root '*bhū*'. The roots, ending in *ā* take '*us*' and loose their *ā* before it; *bhū* retains its vowel unchanged through out inserting '*v*' after it before ending '*am*' and '*an*' (of 1st sing. and 3rd plural)[2]. In RV instead of '*abhūvam*', '*abhuvam*' is found twice.

This form of aorist is also made from the roots ending in *ṛ*, a few in *i*- and *u*- vowels. Roots ending in *ṛ* take guṇa (throughout the indicative active except 3rd plural. Roots ending in *i* or *u* (short or long) show the same tendency. Forms are also available with loss of ending, (as *akar* etc.)

Further, this variety is available from.

i. a few roots with medial or initial vowels capable of *guṇa*- strengthening and having in general that strengthening only in sg.

ii. a number of roots with '*a*' as radical vowel of which '*gam*' occurs most frequently with different varieties, (as *agamam, agan* (2nd and 3rd sing.) *aganama, aganta, agman.*

In *ātmnepada* (middle forms), most of the forms are such which belong to the s-aorist (with ommission of the *s*). We have forms with roots ending in vowels (as *adhithās, adhita, adhīmahi* etc. Forms are also avaible with roots ending in

---

1. Vedic Gram. p. 366 (para-498)
2. Whitney, p. 299

consonants, but according to Whitney, roots ending in consonants, the case in more questionable because of euphonic rule.

The available modes of this aorist are :

Subjunctive : *karāṇi, gamāni, gāni* (Active : Sing. I)

Injunctive : *karam, gām, dhām* (Active; Sing I)

Optative : *aśyājm, ṛdhyām, deyām* (Active; Sing I)

Imperative : *kṛdhi, gadhi, bodhi* (Active; Sing. 2)

Participle : *ṛdhant, krant, gmant* (Active)

S-Aorist[1] **Variety**

(suffix s; athematic endings; *vṛddhi* in *parasmaipada, guṇa or weak grade in ātmanepada)*

In-this sigmatic variety of the aorist (i) the radical vowel takes '*vṛddhi*' in the active and in the middle (except final '*i*' and '*u*' which take *guṇa*), (ii) the radical vowel remains unchanged.

Macdonell[2] finds some irregularities also, as (i) in few active injunctives forms *guṇa*, appears instead of *vṛddhi* (e.g. *je-ṣma-*) (ii) In two or three middle forms of '*sah*' (overcome), the '*a*' is lengthened (e.g. *sāk-ṣi-*)

(iii) The root is shortened in a few middle forms; thus the '*ā*' of '*dā*' (cut) is reduced to '*i*' in sing. I optative '*di-ṣ-īya*', and the nasal of '*gam*'

---

1. *aniṭ-sij-luṅ*
2. p. 377 (para, 520)

(to go) and '*man*' (to think) is dropped in the forms '*a-ga-smahi*' and '*ma-sīya*'.

iv) After a consonant other than to *m n r*, the tense sign '*s*' is dropped before *t, th,* and *dh*; thus '*a-bhak-ta*' beside '*a-bhak- ṣ-i* (*bhaj*) '*pat-thās* (AV) beside *pat-s-i* (*pad-* AV); 'a- *sto-dhvam*' (*stu*), where the *s* on becoming *ṣ* cereberalised the following dental before disappearing.

Burrow[1] puts a point that before terminations beginning with occlusive when the root ends in such the s of this aorist is elided according to the usual phonetic rule : *araudh-s-ta* becomes '*arauddha*' etc. According to him this leads to some confusion between this aorist and the root aorist, but this is largely eliminated in the post-vedic period by the disuse of the root aorist except in connection with very few roots. He further adds that the phonetic decay also strongly affected the 2nd and 3rd singular active, with the result that both the tense sign s and the terminations frequently disappear '*abhār*' for '*abhār- s-t*' and '*abhār-s-s*', similarly *araik, aśvait,* etc.

In post-vedic period, in place of these irregular forms, new formations with the connecting vowel *-ī-* (*anaiṣīt, acchaitsīt,* etc.) have taken place.

The following modes of the s-aorist are found in the literature:

Indicative : *abhārṣam, abhār, abhārṣīt (Active)*

Subjunctive : *stoṣāmi, darṣasi, jeṣas (Active)*

1. p. 337

Injuncitve : *Jeṣam, yūṣam, staṣam (Active; Sing)*

Optative : *dṛṣīya, bhakṣīya, masīya (Sing' t)*

Imperative : *sāksva (Middle, sing. 2)*

Participle : *dākṣant, dhākṣant.*

Iṣ-Aorist[1] variety

(suffix *iṣ*; athematic endings; *vṛddhi* or *guṇa* in *parasmaipada, guṇa* in *ātmanepada*)

In this variety of *luṅ* or aorist the suffix '*s*' is added with connecting '*i*' the basic grade is *guṇa*, but in the *parasmaipada* final *ī ū ṛ* are strengthened to *vṛddhi* and medial '*a*', sometimes strengthened to *ā*. According to Macdonell, no roots with final *ā* and *ī* take this aorist.

In old language this form is noted from about 150 roots. Roots are of almost all varieties According to Whitney[2] no rule appears to govern the choice of usage between the *is*-and *s-aorist*, and in small number of cases the same root shows forms of both classes. Some irregularities are also found, as '*nudiṣṭhās* (in AV) without *guṇa*, *avadhīm* (with augmentless *vādhim*) in Ist sing. active. According to Macdonell, this is the only aorist from which a few forms are made in the secondary conjugations.

According to Burrow[3], several different but closely related types of formations have come to be associated with the iṣ- aorist:

---

1. *seṭ-sij-luṅ*
2. p, 322, (para 903 (a))
3. Page 339

(I) The suffix *-īṣ-* (as opposed to *-iṣ-* with short *-i-*) is used in the case of the root *grabh-* (to seize) : *agrabhīṣma.*

(2) Non-sigmatic formations in -ī- appear : *agrabhīm. avadhīm, agṛhītām. agṛhīthās.* The normal 2nd and 3rd sg. of the *iṣ* aorist is adapted from this formation, since *-iṣ-s* and *-iṣ-t* cannot phonetically produce - *īs* and *-īt*

(3) Some preterite stems in short *-i-* have been incorporated in this aorist : *atārima, avādiran, bādhīthās, aviṭa,* etc.

This aorist represents all the moods except participal forms. The moods available are :

Indicative : *akramiṣam, akramīs, akramīt* (Active, Sing)

Subjunctive : *daviṣāṇi, aviṣas, kāriṣat* (Active)

Injunctive : *śaṁsiṣam, hiṁsiṣam* (Active, Sing. I)

Optative : *edhiṣīya, gmiṣīya, janiṣīya* (Active, middle Sing)

Imperative : *Aviḍḍhi, aviṣṭu* (Sing.)

Siṣ-Aorist[1] Variety

(Small Class : suffix '*siṣ*'; athematic endings; *parasmaipada* only)

This variety of aorist is formed from only a very limited number of roots ending in -'*a*' and roots '*nam*' (to bow), '*yam*' (to hold) and '*ram*'[2] (to take pleasure). It is inflected like the '*iṣ*- aorist'.

---

1. *sak-seṭ-siṭ-luṅ*
2. A. 7.2.93

According to Burrow[1] an innovation of Indo-Aryan. Whitney[2] considers it as only a sub-form of the *iṣ*-aorist, having the tense-sign and endings of the latter added to a form of root increased by an added '*s*'.

Augmentless forms are also available, i.e. *jñāsiṣam, raṁsiṣam, hāsiṣṭa* etc.

Modes of *siṣ*-aorist occur as :

Indicative : *ayāsiṣam* (Sing. I)

Subjunctive : *gāsiṣat* (Sing. 3)

Optative : *vaṁsiṣīya* (Sing. I)

Injunctive : *raṁsiṣam* (Sing. I)

Imperative : *yāsiṣṭam* (Dual 2)

---

1. p. 39
2. p. 324, (para 92)

Chapter-II

A) Pāṇini's Process of Derivation

B) Explanation of Sūtras for the Derivation of Luṅ Lakāra

A. PĀṆINI'S PROCESS OF DERIVATION

Pāṇini's grammar[1], known as *AṢṬĀDHĀYĪ*[2] is considered as the description of a language 'current in his time'[3] and place , aproximately 500 B.C. The language described in this *sūtra* text (aṣṭādhyāyī) is SANSKRIT.[4] Cardona (1988) considers that "though ***Paṇini's aṣṭādhyāyī*** is not the first grammatical treaties on Sanskrit, as he had refered number of his predecessors in the field of grammar, but it is the earliest complete treaties of its kind to have been preserved."

Kāśikāvṛtti, the most commonly used commentary on the *aṣṭādhyāyī*, gives for 3983 *sūtras* of *aṣṭādhyāyī* which are divided or distributed in eight chapters (*aṣṭa-adhyāyās*), each of which again is subdivided into four *pādas*(quarter chapter) as—

---

1. *Śabdānuśāsanam (Mahābhaṣyakāra Patañjali)*
2. A set of staments, called as *Sūtra*
3. George Cardona (1988) p.1.
4. *Patañjali* calls it the language of the *śiṣṭa*, the elite and model speakers

I.	(1) 75	(2) 73	(3) 93	(4) 110= (351)
II	(1) 72	(2) 38	(3) 73	(4) 85= (268)
III.	(1) 150	(2) 188	(3) 176	(4) 117= (631)
IV.	(1) 178	(2) 145	(3) 168	(4) 144= (635)
V.	(1) 136	(2) 140	(3) 119	(4) 160= (555)
VI	(1) 223	(2) 199	(3) 139	(4) 175= (736)
VII.	(1) 103	(2) 118	(3) 120	(4) 97= (438)
VIII.	(1) 74	(2) 108	(3) 119	(4) 68= (369)

There are different kinds of *sūtras* and there by serve different purpose. The major division is seen as: a) opertional Rules (*Vidhi-Sūtras*) and b) ancillary Rules Ancillary or interpretational Rules or Sūtras) serve to give the required interpretation and application of other rules. These are of mainly three types---

i. *saṁjñā Sūtras* (technical rules)

ii. *adhikāra Sūtras* (Headings)

iii. *paribhāṣā Sūtras* (meta rules)

In addition to these there are---

1. *niyama sūtra* (restrictive rules) which restricts what would otherwise obtain too broadly.

2. *Pratiṣedha* or *niṣedha sūtra* (negation Rules) which disallows something which would have otherwise applied.

In fact, categorisation is based on nature, scope and application of the rules and thereby *Pāṇini's* system of describing the Sanskrit Language, is in fact, his DERIVATIONAL SYSTEM which includes the following procedures[1]:-

1. In the *Pāṇini's* terminology, steps of derivational system

a) affixes are added to given items.[1]

b) augments are introduced to elements.[2]

c) One element replaces the other other element.[3]

d) an element is doubled

e) instead of a group of elements, a single remainder of the group is allowed to occur.

f) items are combined to form compound.

As said above, operation of the rules is assisted by the interpretional rules: i) *Saṁjñā* rules ii) *adhikāra* rules and iii) *Paribhāṣā* rules.

Saṁjñā rules (or technical rules), in general, assign a name to 'linguistic element or its meaning'[4] by which proper perception of those objects and function may be attained. The object, which is assigned a term is known as *Saṁjñī. Jijñāsu, Pt. Brahm Dutt*[5] accounts for eighty four *Saṁjñā Sūtras* in the *aṣṭādhyāyī*. These are classified in three major categories as:---

i) *śabdasaṁjñā*: It assigns a *saṁjñā* to a linguistic term.

ii) *arthasaṁjñā*: It assigns a *saṁjñā* to the meaning of a linguistic term, like *vibhāṣā, lopa* etc.

---

in general, are:--- 1.*Pratyaya* 2. *āgama* 3. *ādeśa* 4. *Vikaāra* 5. *lopa*

1. *Pratayaḥ* (3.1.1) *paraśca* (3.1.2)----*dhātoḥ* (3.1.7) with ref. to verbal derivational process.
2. *āgama*; it may be insterted to the right as or the side of the root These are of two types *Vikaraṇas* and *āgamas*
3. *ādeśa*, in general is marked by nominative case in the rule.
4. RN Sharma (1987) p.102
5. The TEMOLAT Sanskrit (1982)

Sharma, Rama Nath (1987) gives the 'following schema' to show the types of forms derivable in *Pāṇini*:

i) *prātipadika + sup*

ii) *prātipadika +strīpratyaya +sup*

iii) *prātipadika+taddhita +strīpratyaya +sup*

iv) *prātipadika + taddhita +sup*

v) *dhātu+tiṅ*

vi) *dhātu + taddhita +sup*

vii) *dhātu+ taddhita + strīpratyaya +sup.*

Pāṇinian derivation then starts with a nominal stem or a verbal root as its base input and terminates with the derivation of a word.[1]

In the context of verbal derivational system rules are applied to characterise the verbs by i) Person ii) number iii) voice iv) aspect or type of action v) reducplication vi) augment vii) personal endings viii) tenses ix) moods.

In the discussion on the purpose of garmmar, *Mahābhāṣya-Kāra* considers the purpose as the description of correct or incorrect words,[2] and to achieve this purpose *Pāṇini's Aṣṭādhyāyāī* follows a spectific order of the different rules which has inter locking system. The first basic simple convention assumed by *Pāṇini*, as it seems, is that exceptional rules (*apavāda sūtras*) precludes the application of general rules (*sāmānya* or *utsarga*

1. S.D. Joshi (1968) views that rules of *Pāṇini primary apply with respect to padās* alone to derive *padas* in the context of utterances.

2 *Śabdāḥaśahdas*

sutrās)[1] in general. At some places the order has been reversed also.

According to pāṇinian grammarians, heirarchy of rules may be as, "*para nityāntaranāpavādānām uttarattaram baliyaḥ,*" that in the linear order of the rules, the claim of application of the subsequent rules is stronger, and then the obligatory rules. In many cases principle of *Pūrva Vipratiṣedhaḥ* followed, that is, the preceding rules precludes the following rules. *Patañjali thinks that the para* of *para- prati-ṣedhaḥ*[2] refers to the desired correct form

In other words the right step of grammatical operations. In fact the categories of the sūtras like, *para, nitya, antaraṅa* and *apavāda* get precedence over the other according to the sequence of their enumeration. *Pāṇini* himself in his three important rules:

Pūrvatrāsiddham (8.2.1) *asiddhavadātrabhāt* (6.4.22) *ṇatvatu korasiddhaḥ* (6.1.86) has refeṣed the principles to facilitate formation of words in certain cases. On the otherhand, scope of the expression like-*pūrvatrāsiddham* (8.2.1) does not cover the technical or metalinuistic rules, otherwise it would have been difficult to get the function etc. of a number of *sūtras* of the *aṣṭādhyāyī* without the help of operative rules like: *tasmāditityuttarasya* (1.1.67); *ṣaṣṭhī sthāneyogaḥ* (1.1.49) and *tasminniti nirdiṣṭe pūrvasya (1.1.66).*

Thus, the whole question of the *aṣṭādhyāyī* is to derive the desired form of the words by

---

1. K.R. Tripathi (1991) P.12
2. *vipratiṣedhe param kāryam* (1.4.2)-"In two equally forceful rules, the later becomes applicable."

following the different rules of *Pāṇini's aṣṭādhyāyī* that, perhaps, is the reason that most of the scholars[1] cosider *paṇini's aṣṭādhyāyī* as the 'descriptive grammar.'[2] not 'prescriptive to derive forms with correct usage.[3] Al-George perceives *aṣṭādhyāyi-sūtras* as *lakṣaṇa* (Charactristic) which serve to explain by derivation, the forms of correct usage.[4] Basics to this derivational system are: base (*prakṛti*) and affixes (*pratyaya*) which reproduce, under given conditions, words called *pada*.[5] Formula, thus in general is considered as:

base—*pada*—affix (and conditions)

The bases themselves are of two types: verbal roots (*dhātu*) and nominal (*prātipadika*). Bases may be primitive or derived. George Cardona.[6] remarks that 'the conditions under which affixes are introduced are of the following types.

Some rules state meanings as conditions:

affix A is introduced after item I when meaning M is to be denoted.[7]

Some rules state cooccurrence condition:

affix A is introduced after item I if item J occurs.[8]

---

1. Wackernāgel (1896).
2. Stall J.F.,(1965) quoted by George Cardona (1980;Indian Reprint).
3. Chāru Dev Śāstri.
4. These are called *Lakṣya* (that which is to be)
5. *Sup-tiṅantam padam* (1.4.14) a nominal and verbal ending-item is called *pada*."
6. *PĀṆINI*: A survey of Research (1980)p.183
7. as, 3.4.69 *(laḥ karmaṇi ca bhāve cākarmakebhyaḥ.)*
8. as 2.3.31 *(enapā dvitīyā)*

Some rules state a combination of these conditions:

A is introduced after I if M is to be denoted and J occurs.[1]

Some rule, in addition, introduce affixes without giving any condition. Such affixes are said to be introduced redundantly,[2] the meaning denoted by the derivate is the same as that of denoted by the item to which the affix is added

(The *padas* which are derived by affixation to base are subject to morphophonemics.)

An other important aspect of *aṣṭāhyāyī* is the Rule Ordering. The following points can be refered:

1. Rules of *aṣṭdhyāyi's tripādi* the final three quarter chapters i.e. part 2, 3, 4 of chapter VIII) are ordered extrinsically. Cardona[3] notes that 'not only do these rules not supply operands for rules of the preceding sections, but within the *tripādi* a rule R+1 is treated as non- existant (*asiddha*) with repect to preceding (*pūrvatra*) rule R; it does not supply operands for the later.

2. the group of *sūtras* 1.4.3 to 2.2.38 are also extrinsically ordered. These rules are headed by 1.4.1 (*ā kaḍārādekā saṁjñā*). Rule 1.4.2 (*vipratiṣedha param kāryam*) provides that if two rules (or more) this section come into conflict the subsequent operation takes effect preferentially.

---

1. as 3.2.118 *(laṭ sme)*
2. meaning of itself (*svārtha*) [to which an affix is added]
3. p.189

3. In other remaining part the external order of rules is not pertinent to their application, rather proper rules are selected from other parts and applied to have correct derivatives. In otherwords, a given rule can require for its interpretation, information available only from rules stated later or earlier In fact the key question is of 'proper context' for a particular rule to apply properly.

Moreover, *Paṇini* has used a good number of technical terms, classified by scholars as---

a) General, as *ādeśa* (Substitute), *sthānin* (substituend), *vacana* (number in general).[1]

b) Phonological Terminology, like *āsya-prayatna* (effort in the mouth), *mukha-nāsikā-vacana* (pronounced by mouth & nose, together), *samprasāraṇa* (letter-i u ṛ lṛ), *udatta (high-pitched vowels) anudātta* (low-pitched vowels) and *svarita* (combination of low and high pitch).

c) Verbal Terminology, like *kriyā* (action), *bhāva* (becoming), *dhātū* (verbal base) *L*-suffixes like *laṭ, liṭ* etc., *sārva- dhātuka* (having to do with whole root), *ārdhadhātuka* (having to with a half root).

d) Terminology for nominal system, like *sarvanāman 'pronominal' nadi* 'river' for a class, *samānādhikaraṇam etc.*

In the same way, *Pāṇini* uses some markers.[2]

---

1. It is argued that *Pāṇini* has not used *vacana* strictly in the sense of 'number'

2 He calls it as *'it'*. These are not the part of linguistic items and are unconditionally deleted. In *aṣṭādhyāyī*, these markers have specific function.

B. EXPLANATION OF SŪTRAS FOR DERIVATION OF LUṄ LAKĀRA

In the previous section, we introduced the machinary that *pāṇini* uses for stating the rules of his grammar. The above discussion is absolutely essential for understanding and correct interpretation of the *sutras* of the *Aṣṭādhyāyī*.

Now we come to our main topic, i.e. the derivation of the *luṅ* 'Aorist' forms of the sanskrit language.

Rules for the derivational process of AORIST:---

Aorist *(luṅ) is the ārdhadhātuka tense. No conjugational signs are therefore added to it. In general, the roots are divided into three classes:---*

i) *SEṬ*, which literally means with *iṭ*>i.

ii) *ANIṬ*, literally means without *it>i.*

iii) *WEṬ*, which means either with or witho*ı it(>i).*

In *luṅ lakāra, SEṬ* roots take *ı* before all the terminations of the non-conjugational tenses and moods, which begin with any consonant except *ya.*

WEṬ roots admit ıt optionally and ANIṬ roots do not admit it.

Aorist, being the past tense, the secondary endings are used to show it, and stem is made in seven different manners.

Sūtras Pertaining to the Derivation of the **luṅ** forms.

The L-suffix *luṅ is introduced on condition that an action is referred to the past:*

Luṅ (3.2.110).[1]

'The L-Suffix *luṅ* is introduced after a root if the action denoted by it refers to the past'.

Since the affix is *ṅit*, the *i* of an ending *ti,mi,si*, etc. is deleted by the rule 3.4.100.[2] Further the suffix *cli* is brought after the root followed by the ending which derives from *luṅ*. It is again replaced by other affixes as the different rules follow:---

Cleḥ Sic *(3.1.44)*

The *Sic* is substituted for *Cli*

The *i* of *Sic* is for the sake of pronunciation, the *C* is for accent. The affix, therefore is *s*, as in *akārṣīt* (he did). According to *Vārtikakāra*[3] the substitution of *Sic* is optional in the Aorist of the roots *spṛṣ (to touch), mṛṣ* (to rub) *Kṛṣ (to plough) tṛp* (to become) satisfied and *dṛp* (to light). Thus these roots have optional forms, as

spṛṣ› asprākṣīt, aspārkṣīt or *aspṛkṣat.*

Śala igupadhādanitah Ksaḥ (3.1.45)[cleḥ luṅi]

---

1. *'bhūte'* (in the past) (3.2.84)
2. *itaśca* [*nityam ṅitaḥ* (3.2.99); *lopaḥ* (3.2 97)] Zero also obligatorly replaces the *i* of an ending which derives from an L-suffix marked with ṅ. Cardona (1980) p.339.
3. *spṛṣ-mṛṣ- kṛṣ-tṛp-dṛpām sijvā vaktavyaḥ.*

After a verb that ends in a *śa* consonant, and has an *ik* vowel for its penultimate letter, and does not take *it*,[1] *ksa*[2] is the substitute of *Cli*.

As *mṛś*

Three conditions are mentioned in this *sūtra for the application of affix Ksa*:

i) Verb should end in *śala* consonant (*ś ṣ s and h*) because otherwise form will be *abhaitsīt* with *Sic*

ii) Verb should have its penultimate *ik*{ *i u ṛ ḷṛ* letters] otherwise form will be *adhākṣīt*

iii) Verb does not take *it*, Vasu, S.C.points out, Observe.akoṣīt and *amoṣīt*.

śliṣa āliṅane (3.1.46) [*cleḥ ksaḥ*]

ksa substitutes *Cli* after the verb *śliṣ* when it is employed in the sense embracing.

This is restrictive *sūtra*.

na dṛśaḥ (3.1.47) [*cleḥ ksaḥ*]

ksa is not a substitute of *Cli* after the verb *dṛś* (to see). This is an exception to the *sūtra* 3.1.45-*śala igupadhā daniṭaḥ Ksa*. The verb *dṛś takes Aorist from 3.1.57 "irito vā' (cleḥ aṅ)"---aṅ and sic; as adarśat* or *adrākṣit* (he saw)

---

1. *Ekāc upadeś anudātta* (7.2.10)
2. The *a* of *ksa* is elicted when followed by an *ajādi* affix by the *sūtra*; *Ksasyāci* (7.3.72), the *a* of *Ksa* is elided when followed by an *ajādi* affix. Thus we have,
   diś+t>a+diś+sa+t=adikṣat
   diś+an>a diś+s+an= adikṣan (ksayāci).
   ś is replaced by ṣ by the rule—*Vṛaśca-bhrasja-sṛja-mṛja-yajā rāja-bhrājac-chaśām ṣaḥ (8.2.36) Ṣ* by *K* by rule-*ṣaḍhoḥ Kaḥ si* (8.2.41)

ṇi-śṛi-dru-śrubhyaḥ kartari caṅ (3.1.48) [*Cleḥ luṅi*].

After a root which ends in *ṇi*[1] *and after the verb śṛi* (to serve), *dru* (to run) and *sru* (to drop *caṅ* substitutes *cli* when *luṅ* follows signifying an agent.

i of *caṅ* prevents the *guṇa* and *vṛddhi* and *c* is to distinguish it from the affix *aṅ*

Reduplication takes place, when *caṅ is added to the root,*[2] and then usual terminations are employed; as acīkarat (he caused to make); *aśiśriyat* (he served), *adudruvat* (he ran), *asusrut* (it flowed).

Vārtikarkāra adds the root *kam* (to love) to this *sūtra;* thus *acakamat* (he loved) and *acīkamat* when it takes *ṇiṅ.*[3]

vibhāṣā dheṭśvyoḥ (3.1.49) [*Cleḥ caṅ kartari luṅi*]

caṅ optionally Substitutes *Cli* after the roots *dhe* (to suck) and śvi (to grow) when *luṅ* follows signifying an agent, as *adadhat* (he sucked) and in alternative form, *adhāt or adhāsīt* (he Sucked)[4].

So also of *Śvi*, we get *aśiśvayat* (he grew). It also takes aṅ[5] and then form is *aśvat* or *aśvayīt.*

---

1 A.3.1.20,21,44

2. *caṅi*(6 1.11) of a non-reduplicated root there is reduplication when the affix when the affix *caṅ* of the Aorist follows.'

3 A3.1.30 *kameṇṇiṅ.*

4. when it takes alternative *sic,* then rule A 2.4.78 *(vibhāṣā ghrā-dheṭ-Śā- chāsaḥ)* comes into operation, i e. After the roots *ghrā, dheṭ,* śā, *chā* (*cho*) and *Sā (So)* there is optionally the elision of *sic,* when *parasmaipada* terminations are employed.

5. By A.3.1.58.

gupeśchandasi (3.1.50) [*cleḥ caṅ vibhāṣā kartari luṅi*]

caṅ is optionally Substituted for *cli* after the verb *gup* (to protect) in the *chandas*,[1] as *ajugupat* or *agauptam* etc.

nonayatidhvanayatyelayatyardayatibhyaḥ (3.1.51) [*cleḥ caṅi chandasi*]

After the causatives of the verbs *ūna* (to decrease) *dhvan* (to sound) *śla* (to send) and *ard* (to go or to beg) *caṅ* is not the substitute of *cli* in the *chandas*. Thus we have *ūnayīḥ* in the vedas while *aunīnat* in the classical literature.

Aṅ-Aorist

asyativaktikhyātibhyo-aṅ (3.1.52) [*cleḥ kartari luṅi*]

aṅ is the substitute of *cli*, when *luṅ* follows signifying the agent, after the verbs *as* (to throw) *vac*[2] (to speak), and *khyā*[3] (to speak). The root *as* is of fourth conjugation & the root falls under the sub-division of *puṣādi*, and therefore it would have taken *aṅ* in the *parasmaipada* by the rule *puṣādidyutḍradyldilaḥ parasmaipadeṣu* (3.1.55)

The special indication therefore, indicates that it takes *aṅ* in the *Ātmanepada* also.

---

1. This rule applies where the root *gup* does not take the affix *āya* by A.3.1.28.
2. *Vac* may be either the root or substitute of *brū; bruvo vací(2.4.53)*
3. *Khyā* may be the root or the substitute of *cakṣ*; *cakṣiṅaḥ kyañ*(2.4.54)

Thus, *pari+as› paryāsthat*;[1] *vac›avocat*,[2] *khyā›ākhyat*[3]

lipisicihvaśca (3.1.53) [*cleḥ aṅ kartari luṅi*]

aṅ is the substitute of *cli*, when *luṅ* follows signifying the agent, after the verbs *lip* (to paint), *sic* (to sprinkle) and *hve* (to call).

Thus *lipa›lipat*;

sic›asicat; and *hre›āhvat*.

These roots have optional forms with *aṅ* in *ātmanepada* by the rule *ātmanepadeṣvanyatarsyām* (3.1.54).

thus, we have *lip›alipat or alipta*; *sic›asicata or asikta* and *hve› āhvat or ahvāsta*.

puṣādidyutādylṛditaḥ parasmaipadeṣu (3.1.55) (*cleḥ aṅ*)

aṅ is the substitute of *cli*, after the verb *puṣ*[4] (to nourish), and rest, *dyut*[5] (to shine) and the rest, and the verbs having an indicatory *lṛ* when the affixes of the *parasmaipada* follow.

---

1. The stem *as* gets the augment *thuk* before *aṅ* (*asyatesthuk*)(7.4.17)
2. The root *vac* tskes the augment *um* followed by *aṅ by the Sūtra Vacauma* (7.4.20)
3. These roots are specifically mentioned with their *anubhandhas*, other similar roots are, therefore not covered by this rule.
4. *puṣādi*, the verbs classed as, are a subdivision of the fourth conjugational verbs (*Divādigaṇa*)
5. *dyutādi*, belong to the I[st] conjugation (*bhvādigaṇa*)

Thus we get *puṣ>apuṣat; dyut>adyutat; gamlṛ>*[1] *agamat*

dyut takes *parasmaipadī* affixes optionally for *luṅ* by *sūtra-dyutbhyoḥ luṅi (1.3.91)*

sartiśāstyartibhyaśca[2] (3.1.56) [*cleḥ aṅ*]

aṅ substitutes cli is *parasmaipada* as well in *Ātmanepada* after the words *sṛ* (to go), *śās* (to order) and *ṛ* (to go). This *Sūtra* is separetely enuciated in order to make the rule applicable to *Ātmanepada* also.

Thus, *sṛ>asarat; śas>aśiṣat; ṛ>ārat.*

irito vā (3.1.57) (*cleḥ aṅ*)

aṅ is potionally substituted for *Cli* after the roots which have an indicatory *ir*, when the *parasmaipada* terminationas are employed, *as bhidir (to divide)*

Thus *bhidir (>bhid)>abhidat or abhaitsīt.* and we have *abhitt* in the *ātmanepada.*

Jṛ-stambhu-mrucu-mlucu-grucu-gluñcu-śvibhyaś ca (3.1.58)[*cleḥ aṅ vā*].

aṅ is oplionally substituted for *cli* after the verb *jṛ*, (to grow), *Stambhu* (to stiffen) *mrucu* and *mlucu* (to go), *grucu and glucu* (to steel), *gluñcu* (to

---

1. Root *ad* is replaced by *ghaslṛ* for *luṅ* by the rule *luṅ-sanorghaslṛ* (2.4.37).
   Thus we have, *aghasat.* Again, *patlṛ* (*gatau*), the augument *pum* is added followed by *aṅ* by the rule *pataḥ pum* (7.4.19) Being *mit* it is added immediately after the last vowel (*midaco antyāt paraḥ*), thus *apatat.*
2. The *ca* in the *sūtra* is to draw the *anuvṛtti* of the phrase *'parasmaiptada'* of the preceding *sūtra.*

go) and *śvi*[1] (to grow), when the terminations of the *parasmaipada* are employed.

Therefore, we have,

jṛ›ajarat or *(ajārīṭ); stambhu›astambhat* (or *astambhīt); mrucu›amrucat* (or *amrocīt); mlucu›amlucat* (or *amlocīt); grucu›agrucat* (or *aglocīt) gluñcu› aglañcat* (or *agloñcīt*); *śvi›aśaśvat* (or *aśvayit* or *aśiśviyat).*

kṛ-mṛ-dṛ-ruhidhyaḥ chandasi (3.1.59) [*cleḥ aṅ*]

aṅ is the substitute of *cli*, when used in the *chandas* after the verbs *kṛ* (to do), *mṛ* (to die) and *dṛ* (to tear) and *ruh* (to rise).

So we get *kṛ›akarat; mṛ›amarat; dṛ›adarat* and *ruh›āruhat.*[2] According to *Pāṇini*, this is the position in *Chandas* (*Vedaḥ*) but in classical literaure aorist of these verbs are as:

kṛ›akārṣīt; mṛ›amṛt; dṛ›adārīt and *ruh›aruhat.*

ciṇ te padaḥ (3.1.60) *[cleḥ]*

ciṇa[3] is the substitute of *cli* after the verb *pad* (to go), when the afix '*ta*' follows.

The affix *ta* here means to third person singular tense-affix of the *ātmanepada, as apādi.*[4]

---

1. *śvayateraḥ (7.4: i* of *śvi* becomes *a* when followed by *aṅ*
2. Ṛg. Veda x.85.17 *claṃ tebhyo karam namaḥ. x.44 6 nā ye ṣekur yogñiyam nāvam āruham (Vasu, S C., p.372)*
3. Here *ṇ* is for *vṛddhi* and *C* for *swara.*
4. *aṭ+pad+ciṇ+ta=a+pad+i=apādi.* The personal ending *ta* is elided by the rule A. VI. 4.104; *ciṇo luk (pratyayasya).* Vasu, S.C. take the note of the point that .here the elision of personal affix *ta* of the aorist being considered as *asiddha,* the affixes *tarap* and *tamap* are not elided:

But not so in the dual and plural; as-*apasātām* and *apatsat*.

dīpa-jana-budha-pūri-tāyi-pyāyibhyaḥ-anyatar asyāma (3.1.61) *[cleḥ ciṇ te]*

ciṇa is optionally substituted of *cli*, when *ta*, the third person singular of the *Atmanepada* follows, after the verbs *dīp* (to shine); *jan* (to be produced); *budh* (to teach or know); *pūr* (to be full), *tāy* (to extend or project) and *pyāy* (to smell).

Thus the forms available are, *dīp* > *adīpi* or *adīpiṣṭa; jan* > *ajani* or *ajaniṣṭ; budh*›*aduddh* or *abodhi; pur* > *apūri* or *apūriṣṭa; tāy*›*atāyi* or *atāyiṣṭa; pyāy* > *apāyi* or *apyāyiṣṭa*.

acaḥ karmakartari (3.1.62) [*cleḥ te ciṇ*]

ciṇ is optionally the substitute of *cli* when *ta* third person singular of *Ātmanepada* follows, after a root which ends with a vowel, and when the object its self is spoken of as the agent.

According to explantion given by Vasu, S.C., this is an optional rule(*prāpta vibhāṣā*). Therefore we have, *kṛ* > *akṛta* or *akāri*.

But in verbs other than those that end in vowels,the *ciṇa* is obligatory in reflective voice.[1]

duhaśca (3.1.63) [*cleḥ ciṇ anyatarasyāma karma-kartari*).

---

though of the *sūtra* were to be literally interpreted, every affix after the *ciṇ*, ought to be elided or the word *kniti* is understood here, so that *kit ñit* and affix of *ciṇ* are elided and not every affix.

1. A reflexive verb is one in which the object is spoken of as the agent.

Ciṇ is, optionally, the substitute of *Cli* after to verb *duh* (to milk), when it is used reflexively.[1] and when *ta* follows. Thus we have, *auh* > *dohi* or *adugdh*.

na rudaḥ(3.1.64) *[cleḥ ciṇ karm-kartari]*

ciṇ is not substituted for *cli* after the verb *rudh* (to obstruct) when used reflexively, and when the sense is that of third person singular of the *Ātmanepada*.

Thus we have, *rudh*›*āruddha*.

Inverbs other than reflexive, *ciṇ* is employed. i.e. ārodhi.

tapaḥ-anutāpe ca (3.1.65) [*na cleḥ ciṇ karma-kartari*).

Ciṇ is not substituted for *Cli* after the verb *tap* (to suffer), when used reflexively, and when the sense is that of experiencing remorse.[2]

ciṇ bhāvakarmaṇoḥ (3.1.66) {*cleḥ ciṇ te*}

ciṇ[3] is the substitute of *cli* when *ta* of third person singular *Ātmanepada* follows, denoting the action[4] or the object.[5]

sici vṛddhi parasmaipadeṣu (7.2.1)

---

1. In verbs other than reflexives, the *ciṇ* is compulusory
2. Vasu, S.C , notes that this prohibition applies even to the the passive and impersonal voices of the verb *tap*; i.e. *atapta*.
3. According to Vasu, S.C.,the repetition of *ciṇ*, is for the sake of ditinctness.
4. A verb is said to denote an action when it is used impersonally.
5. It is said to denote an object in the passive sense.

The final *i*, *u*, *ṛ* (*ik*) of a root-base is lengthened in the *parasmaipada* before *sic*, thus we have,

śri > aśrāyīt, in ātmanepada aśrayiṣṭa.

ato lrāntasya (7.2.2)

The penultimate *hrasva* (short) *a* of roots ending in *r* or *l* is lengthened before *sic* in the *parasmaipada*, as,

kṣar > akṣārīt; jval > ajvālīt.

vadavrajahalantasyācaḥ (7.2.3)

The penultimate of *a* of *vad* and *vraj* and of a owel in a root-base ending in a consonant is lengthened before *sic* in the *parasmaipada*, so we have,

vad > avādīt; vraj > avrājīt and *bhidir > abhaitsīt.*

neṭi (7.2.4)

The vowel in a root-base ending in consonant is not lengthened when *sic* takes the augement *iṭ*. There is a *guṇa* replacement, like

citi > acetīt; divu > adevīt.

ato halāderlaghoḥ. (7.2.7)

The short *a* in a roc.-base begining with a consonant is optionally lengthened before *sic* in the *parasmaipad* when the augment *iṭ* is allowed. So we have,

gad > agādīt or agadīt.

h-m-y-ant-kṣaṇaśvasajāgṛṇiśveyeditām (7.2.5)

The root-bases ending in *h-m-y*, the roots *kṣaṇ*, *śvas*, *jāgṛ*, a stem formed with *ṇi*, the root *śvi* and the roots having an indicatory *e* in the *dhātu-paṭh* do not allow *vṛddhi* of the vowel before

sic in the *parasmaipada* when the augment *iṭ* is allowed.

Thus we have *grah* > *agrahīt.*

The augment *iṭ* is lengthened after *grah* before a *valādi ārdhadhātuka* affix except *Liṭ* affixes by *sūtra, graho alıti dīrghaḥ* (7.2.37),-*agrahīṣṭam*

ṭuvam > *avamīt, avamiṣṭām*

vyay > *avyīt; kṣaṇu* > *akṣaṇīt; śvas* > *aśvasīt and jagṛ* > *ajāgarīt.*

ūrṇotervibhāṣa (7.2.6)

The vowel in the root *ūrṇu* is lengthened optıonally before *sic* in the *parasmaipada* with the augment *iṭ* following.[1]

Thus we have, *urṇu* > *aurṇāvīt.*

stu-su-dhūñ-bhyaḥ parasmaipadeṣu (7.2.72)

The (*sic* of the *S*-Aorist takes the augumenṭ *iṭ* after the roots *stu, su* and *dhūñ* in *parasmaipada stu* and *su* are *aniṭ, dhūñ* is *veṭ* by the *Sūtra, Svavatisūtisūyatidhūñū dıṛovā (7.2.44).*

So we have, *ṣṭuñ* > *astāvīt, astāviṣṭām* in *parasmaipada* but *astīṣṭa* in *ātmanepada.*

ṣu > *asāvīt, asāviṣṭām.*

dhūñ > *adhāvīt, adhāviṣṭām.*

Yama-ramanamātām sak ca (7.2.73)

Roots *yam, ram* and *nam* and roots ending in *a*[2], gets the augement *iṭ* before *sıc* and further *sak*(-*s*) is added to these bases in *parasmaipada.*

---

1. This option applies when the *sıc* is not treated as *ñıt.* After *ūrṇu, sıc* is optıonally *ñit.* when it is ñit, there being neither *guṇa* nor *vṛddhi.*

2. which are *anıṭ.*

Thus we have---

yam[1] > *ayansīt, ayansiṣṭām, ayansiṣuḥ.*

ram[2] > *aransta*

ṇam > *ananstt, anasīṣṭām.*

sārvadhātukārdhadhātukayoḥ (7.3.84)

In *ātmanepada*, roots in general undergo *guṇa* substitution for the final *ik* vowels of a stem before the affixes called *sārvadhātūka*[3] and *ārdhadhātuka*[4] by this *sūtra* and *puganta laghūpadhasya ca*(7.3.86).

Exceptions to guṇa:

liṅ-sicāvātmanepadeṣu (1.2.11) [*halantāt ik jhal*]

After roots ending in a consonant, that adjoins a vowel of *ik pratyāhāra*, the substitute of *liṅ*[5] and *sic*[6] when they begin with a consonant of *jhal pratyāhāra*, are *kit*, when the *ātmanepada* affixes follow.

As such this rule does not permit *guṇa* substitution in the root-base in the *ātmanepada.*

Thus we have,

bhidir > *abhitt* in *ātmanepada* but *abhaitsīt* in *parasmaipada.*

---

1. The root *yam* is *ātmanepadī* preceded by *ā-āṅoyamahanaḥ* (1.3.28). In the sense of *gandhane* (to divulge) the affix *sic* becomes *kit* in *ātmanepada* for *yam* by *sūtra-yamo gandhane*(1.2.15)
2. *ram* is *parasmaipada* preceded by *vi* and *ā* by *vyāṅparibhyaḥ ramaḥ* (1.3.83)
3. *tiṅ-śit-sārvadhātukam* (3.4.113)
4. *ārdhadhātukam śeṣaḥ* (3.4.114)
5. 3.3.161
6. 3.1.44 and the *s* of this aorist is elided by *Jhalo jhali* (8.2.26)

uśca (1.2.12) [*liṅsicau ātmanepadeṣu jhal kit*]

and after verb ending in *ṛ*, the substitutes of *liṅ* and the affix *sic* are *kit* when they begin with *Jhal* and the *ātmanepada* affixes follow.

Therefore, there cannot be a *guṇa* subsitution.

Thus we have, *dukṛñ > akṛta (akṛ+s+t)*

s is elided by *hrsvādaṅāt* (8.2.27), *s* is elided before a *jhalādi* affix when it is preceded by a root ending a short vowel.

vā gamaḥ (1.2.13) [*liṅ-sicau ātmanepadeṣu jhal kit*]

the *liṅ* and *sic* beginning with *jhal*, in the *ātmanepada* are optionally *kit* after the verb *gam*.[1]

Elision of *sic*:

gāti-sthā-ghu-pābhūbhyaḥ sicaḥ parasmaipadeṣu (2.4.77) [*luk*]

The affix *sic* is elided after the roots *gā, Sthā, the roots dā* and *dhā*[2] *pā* and *bhū*

Thus we have, *gā*[3] *> agat; sthā > asthāt;dāadat; dhā > adhāt; pā > apāt* and *bhū > abbūt.*

In *ātmanepada* the *sic* is not elided.

sthā preceded by *upa* is *ātmanepadi* when the meaning is 'to aclore' and when is used intransitively.[4]

---

1. Therefore, being *kit*, the nasal is dropped in the *ātmanepada* , in forming the Aorist with *sic*, thus we have, *agamat* in *luṅ*. *S* is elided by *hrasvādaṅāt* (8.2.27)
2. *dādhāghvadāp*; The verb having the form of *dā* (to give) and *dhā* (to place) are called *ghu* (1.1.20)
3. *iṇo gā luṅi* (2.4.45) *'gā'* is the substitute of *iṇ* when *luṅ* follows.
4. by the *sūtra upāmantrakaraṇe (1.3.25); akarmācca (1.3 26).*

For *sthā* and *ghu* in *ātmanepada*, *sic* becomes *kit*. *a* in the root is replaced by *i*, thus we have,[1]

upa+sthā > *upāsthit*.

iṅ is replaced by *gāṅ* before *luṅ* and *lṛṅ* affixes optionally by *sūtra vibhāṣā luṅlṛṅoḥ* (2.4.50).

These are treated as *ṅit* by the *sūtra*, *gāṅ-kuṭādibhyoṇṇinṅit* (1.2.1), and therefore, there will be a replacement of the final *ā* by *ī* by the rule, *ghu-mā-sthā-gā-pā- jahātisām hali*, (6.4.66), Thus we have-

adhygīṣṭa,adhyagīṣātām, adhygīṣata etc. or *adhyaiṣṭa, adhyaiṣātām, adhyaiṣata* etc.

vibhāṣā ghrā-dheṭśāccchāsaḥ (2 4.78)

[*sicaḥ parasmaipadeṣu luk*]

After the verbs *ghrā* (to smell), *dheṭ*[2] *(to drink)*, *śā* (to pave) *chā*(to cut) and *sā* (to destroy), there is optionally the elision of *sic*, when the *parasmaipada* terminations are employed.

Thus we get, *ghrā* > *aghrāt*; or a*ghrāsīt*. *dhā* > *adhāt* or *adhāsīt*; *śā* > *aśāt* or *aśāsīt*; *chā* > *achāt* or *achāsīt*.

tanādi bhystathasoḥ (2.4.79)[*sicaḥ vibhāṣa luk*]

After the verbs *tan* (to expand) and others there is optionally the *luk*-elision of *sic* when the *Ātmanepada* affixes *ta* and *thās* of the second person follow. Thus we have,

tan > *atat*[3] or *ataniṣṭa*, *atathāḥ or ataniṣṭhaḥ*.

---

1. *sthā-ghvoricca*.(1.2.17)
2. *dheṭ* is *ghu*
3. The final nasal is elided by *Sūtra*; *anudāttopadeśa-vanatitanotyādīnāmanunāsikalopo jhali kṅiti*. (6.4.37)

The root *kamu* (to desire) *bhvādigaṇa*, *ātmanepadi* takes *ṇiṙi* by *sūtra kameṛṇiṙ*[1] (3.1.30), thus we have,

acīkamata[2]

and without *ṇiṙ*, we have *acakamata* (*caṅ*). *caṅ* with *ṇi* is treated like *san* by the *sūtra*,

sanvallaghuni caṅpare-anaglope (7.4.93)

In the reduplicated Aorist of the causative, the repduplicated adapts itself to the desiderative, when the vowel of the root is light, and the root has not lost its end-vowel before the causative affix.

Causative-Ṅic

ṇau caṅupadhāyāḥ hrasvaḥ (7.4.1)

The shortening of the penultimate vowel takes place in the causative stem when the affix *caṅ* follows.

Then the rule *ṇeraṇiṭi* (6.5.51) [*ārdhadhātuke*]

"The *i* of the verbal stem formed with the affix ṇi, is elided before an *ārdhadhātuka* affix which does not take the augment *iṭ*,

[so we have, *a+t kāri+ta+ti=a+kari+a+t*].

---

1. The affix *ṇiṙi* comes after the root *kamu*. The *ṇ* indicates *vṛddhi*, *acoḥ ñṇiti* (7.2.115) and *ṙi* shows *Ātmanepada*

2. *sanyataḥ* (7.4.79) *abhyāsasya ataḥ ikāraḥ sani*.
dīrgho laghoḥ (7.4.94) *laghoḥ abhyāsasya dīrghaḥ ṇau caṅ pare*. *i* is substituted for the final short *a* of the reduplicate in desiderative (7.4.79)In the reduplicative syllable, a prosodially short vowel is lengthened in the reduplicated Aorist of the causative, when the vowel of the root is light, and the root has not lost its end-vowel before the causative *ṇi* (7.4.94)

This *sūtra* debars *iyaṅ*, **the semivowel *ya*, the guṇa, the *vṛddhi* and the long substitutions.**

Thus we have·

a+kari+a+l=a+kar+a+l=a+cakar+a+l

=acikar+a+l

=acīkarat by the *sūtra dīrgho laghoḥ* (7.4.94)

In the reduplicated syallable, a persodially[1] short vowel is lengthened in the Reduplicated Aorist[2] of the causative, when the vowel of the root is light,[3] and the root has not lost its end-vowel[4] before causative *ṇi*.

Thus *curādi ṇic---acūcurat, acūcurata.*

***a*-substitute of reduplicate of Reduplicated Aorist.**

at-smṛ-dṛ-tvar-prath-mrad-stṛ-spāśām. (7.4.95)

Short *a* is substituted for the vowel of the reduplicated in the Reduplicated Aorist of the causative, of the roots *smṛ, dṛ, tvar, prath, mrad, stṛ and spāś.*

Thus we have,

smṛ > asasmarat

dṛ > adadarat

tvar > atatvarat

prath > aparathat

---

1. prosodially light because of forms like *avibhrajat*(S.C.Vasu)p 1489
2. otherwise, *papaca* (S.C. Vasu) p.1489
3. otherwise, observe *atatkṣat, araraksat (S C.Vasu) p.1489*
4. The rule will not apply to simple roots as *acakamat* and not so in *acakathat*

mrad > *amamradat*

stṛ > *atastarat*

spāś > *apaspaśat*

This *sutra* debars the *t* which would have come under the *sūtra sanvallaghuni caṅpare anaglope* (7.4.93).

The short *a* indicates that it is not to be lengthened by *dīrgho laghoḥ* (7.4.94) as *adadarat*.[1]

vibhāṣā veṣṭiceṣṭyoḥ (7.4.96)

short *a* is optionally substituted for the vowel of the reduplicate in *veṣṭa* and *ceṣṭa* in the Reduplicated Aorist of the causative[2]

Thus we have *avaveṣṭat* or *avivеṣṭat; acaceṣṭat* or *acicеṣṭat*.

ī ca gaṇaḥ (7.4.97)

In the Reduplicated Aorist of the causative, *ī* is substitated optionally for the vowel of the reduplicate in *gaṇa*.[3]

Thus we have *ajīgaṇat* or *ajagaṇat*.

Samprasāraṇam

ṇa ca sanścaṅaḥ (6.1.31)

---

1. S.C Vasu, p. 1489
2. In one alternative there is shortening of the reduplicate by *sūtra hrasvaḥ* (7.4.59), *a* short is substituted for the long vowel of the reduplicate.
3. *gaṇa* is a root which ends in *a*, and this *a* elided by *sūtra ato lopaḥ* (6.4.48), " the *a*, at the end of a stem is elided before an *ārdhadhātuka* affix," before the causative *ṇi*. Again, the rule 7.4.93 does not apply to it because there is an *ak-lopa* here, so in the other alternative, it has its natural *a* (S.C.Vasu, p.1490)

The optional[1] vocalisation of the semivowel of *śvi* in causative takes place when followed by the desiderative *san* and the Reduplicated Aorist (*caṅ*) follow, thus we have,

śvi+ṇi+caṅ+t=a+śu+ṇi+at (ṇau ca sanścaṅaḥ)

a+śu+śu+ṇi+at (caṅi)

=a+śu+śau+ṇi+at

=a+śu+śāv+ṇi+at

=a+śu+śav+at (ṇau caṅi.) and *(ṇeraniṭi)*

=aśūśavat (dīrgho laghoḥ)

or *aśiśvayat*

hvaḥ samprasāraṇam[2] (6.1.32)

Vocalisation of the semivowel of the causative of *hve* takes place before the desiderative and Reduplicated Aorist affixes. The root *hvā* requires *ya* by *Sūtra, śā-cchā-sāhvā-vyā-vepām yuk* (7.3.37) before *ṇi*, but it does not because *samprasāraṇa* rule *is* stronger.

Thus we have *ajūhavat.*

ṛ-dṛśa aṅi guṇaḥ (7.4.16)

guṇa is the substitution for the vowel of the root, before the affix *aṅ*, in the roots *ṛ* or *ṝ* and *dṛś.*

Thus we have,

sṛ > sarat (from root *sṛ* vide *sūtra* 3.1.56)

ṛ > ārat

---

1. *vibhāṣā śveḥ* is understood here by *sūtra vibhāṣa śveh (6.1.30)*
2. The repetition of the word, *samprasāraṇam, which was available by anuvṛtti,* shows that the force of *vibhāṣā* ceases here.

dṛś > *adarśat* and

In *śāsu* > *aśiṣat* (form the *sūtra sti-śasityārtibhyaśca*-3.1.56) substitution of *i* in place of vowel of *śās* is by the *sūtra śas idaṅhaloḥ* (6.4.34) [*k-ṅiti*].

There is the substitution of *i* for the vowel of *śās*,

before the *aṅ*-aorist and affix beginning with a consonant having an indicatory *k* and ṅ.[1]

śvayateraḥ (7.4.18)

a is the substitute of *i* of *śvi* beofŕe *aṅ*.

Thus we have, aśvayīt[2] or aśiśviyat[3]

Modifications for substitute ciṇ:-

ciṇo luk (6.4.104)

The personal endings are elided after *ciṇ*, the third person, singular passive of the Aorist, as *ahāṅ, alāvi* etc. S.C. Vasu notes here that here the elision of the personal affix *ta* (by *Sūtra ciṇa ṭe padaḥ-3.1.60*) of the aorist being considered as *asiddha*, the affixes *tarap* and *tamap* are not elided; though if the *sūtra* were to be literally interpreted, every affix after (*ciṇ*, ought to be elided, or the word *k-ṅiti* is understood here, so that *kit* and *ṅit affixes of ciṇ* are elided and not every affix.[4]

---

1. And the *S* is changed to *Ṣ* by 8.3.60; *śāasi- vasi-ghasīnance* "*Ṣ* is the substitution for the *s* of *śās, vas* and *ghas* when it is preceded by an *iṇ* vowel or gutteral."
2. *hm-yant kṣaṇa śvasajagṛṇiśvyeditām (7 2.5) no vṛddhi.*
3. *vibhāṣā dheṭśvyoḥ* (3.1.49) *-caṅ* is optional.
4. p.1289

The passive constructions:

bhāva-karmaṇoḥ (1.3.13) [*ātmanepadam*]

By this rule, an *ātmanepada* affix is the substitute of affix *la*[1] when it denotes the action of the verb or the object of the verb.

This *sūtra* restricts *ātmanepada* affixes to *bhāva* and *karma* verbs. By the sūtra,

ciṇ bhāva karmaṇoḥ (3.1.66)

Cli is replaced by *ciṇ* when *ta* follows denoting *bhāva* or *karma*.

Thus, *kṛ* > *akāri* etc.

āto yuk ciṇkṛtoḥ (7.3.33)

An augment *yuk* (y)is brought with a root-stem ending in ā before the Aorist sign *ciṇ, and before a kṛt-affix with an indicatory ñ* or *ṇ* which causes also the *vṛddhi* of the root vowel, as *adāyi, adhāyi* with *ciṇ*.

vibhāṣā ciṇ-ṇamulo (7.1.69)

The *num* is added to the root *labh* optionally not preceded by a preposition,[2] before the *ciṇ* aorist and absolutive *ṇamul*. Thus we have, *alābhi* or *alambhi*.

nityam ṅitaḥ (3.4.99) [*lasya uttamasya saḥ lopaḥ*]

There will always be elision of the '*s*'[3] of the first person of the affixes that come in place of

---

1. *laḥ karmaṇi cābhāve cākarmkebhyaḥ* (3.4.69) [*kartari*]
2. This is *vyavasthita vibhāṣā*. The option has been allowed where there is no preposition along with the root; and no option is allowed but *num* must be added (S.C.Vasu, p.134)
3. Elision is compulsory, not optional, *Anuvṛtti* of 'optionally' is stopped here by *nityam*.

'la' which has an indicatory *ṅi*,[1] so, *vas* and *mas* are replaced by *va* and *ma*.

itaśca (3.4.100) [*ṅitaḥ nityam lopaḥ lasya*]

And there is always elision of the *i* of that *parasmaipada*[2] affix which is the substitute of a *la* having an indicatory *ṅi* Thus, for *ti*, we have *t* and for *si*, we have *s*.

tas-thas-tha-mipām tām tam-ta-āmaḥ [ṅitaḥ]

The affixes *tām, tam, ta* and *ām* are the substitutes of the four affixes *tas, thas, tha* and *mip* respectively, of any *la* which has an indicatory *ṅi*.

asti-sic-pṛkte (7.3.96) [*sārvadhātuke iṭ*]

A single consonantal *sārvadhātuka* affix gets the augment *iṭ*, after *as* and *sic*, (the aorist character).

sijabhyastavidibhyaśca (3.4.109) [*jherjus*]

jus is the substitute of *jhi* when it comes after an Aorist in *Sic* or the imperfect of a reduplicated verb, or the root *vid* (to know).

This rule applies to tenses having *ṅi*, other than that of *liṅ*, thus *laṅ* and *luṅ*.

The word ṅit of sūtra 3.4.99 is understood here also. Thus of sic, we have *kṛ›akārṣu*.

Example

Process of Derivation in Luṅ Lakāra:

1. ***bhū*** 'to *be*'

---

1. The tense affixes having indicatory '*ṅi*' are four *laṅ, liṅ, luṅ , lṛṅ*.
2. The *i* of the *Ātmanepada*, is however, not elided because the *anuvṛtti* of *parasmaipada* is understood here from the rule 3,4,94 *(itaśca lopaḥ parasmaipadeṣu)* -S.C.Vasu.

bhū By *luṅ* (3.2.110) the *luṅ* affix is to be added.

bhū luṅ

By *cli sic* (3.1.43)

i) When *luṅ follows, the affix cli* is added.

ii) By *cleḥ sic* (3.1.44) *sic* is the substitute of *cli.*

bhū sic luṅ By *luṅ-laṅ-lṛṅkṣvaḍuāttaḥ* (6.4.71)

aṭ augment takes place. Being *ṭit* it takes place before by *ādyanlau takitau.*

aṭ bhū sic luṅ=

a bhū s ti By *itaśca (3.4.100) elision of i* and by *gātisthāghupābhūbhyaḥ sicaḥ parasmaipadeṣu* (2.4.77) there is *s* of *sic* and by *bhū bhuvotiṅi (7.3.88), there is prohibition of guṇa. Thus we have.*

a bhūt= abhūt (In sing, 3rd person, *parasmaipada*) Further by substituting *tām for tas by 3.4.10. We have abhūtam.*

abhūvant, here by saṁyogāntasya lopaḥ (8.2.23) there is elision of last of double consonant and we get abhūvam. So *abhūḥ, abhūtam, abhūta.. abhūvam, abhūva* and *abhūma,*

In *abhūvam* and *abhūvan va (vuk)* comes in by *bhuvo vug-luṅ-liṭoḥ* (6.4.88)

2. ***paṭh*** 'to read'

After getting, *aṭ, paṭh sic t* by rules 3.2.110, 3.1.43, 3.1.44, 6.4.71,3.4.100, the augment *iṭ* is prefixed *sic* by the *sūtra ārdhadhātukasyeḍ valādeḥ* (7.2.35).

a paṭh iṭ s t By *astisico'pṛkteḥ(7.3.96) the augment it* is prefixed to *t* of *tip,* being *apṛkt sārvadhātuka.*

By ādyantau ṭakitau (1.1.45) it is added in the beinning. Thus we have

a paṭh i s īṭ t By *it īṭi* (8.2.28) elision of *s* of *sic* takes place. Then by *akaḥ savarṇe dīrghaḥ* we get ī, so we have

apaṭhīt.

Alternatively, *apāṭhīt* by *ato halāderlaghoḥ.*

apaṭhiṣṭām By *ādeśpratyayoḥ (8.3.59)* and *ṣṭunā ṣṭuḥ* (8.4.40) we get

apaṭhiṣṭām

apaṭhiṣ jhi By *sijabhyastavidibhyaśca* (3.4.69) *jus* substitutes *jhi* and by *cuṭū* (1.3.7) elision of *j* takes place.

apaṭhiṣ us=

apaṭhiṣu By *rutva visarga.*

So, by the same we we get,

apathih, apathistam, apathista, apithisama, apathisva and *apathisma.*

Third Chapter

Varieties and Forms of Luṅ Lakāra

It has been seen that in *Pāṇinian* grammar the aorist is a simple past tense by the rule *luṅ*[1] and is formed by seven different types of stems which are classified as:

1. Non-sigmatic Aorists and
2. Sigmatic Aorists.

Non-sigmatic class has three types of aorists:-

a) Root Aorist
b) *A*-Aorist
c) Reduplicated Aorist

SIMPLE AORISTS

Sigmatic class has four types of aorists:

a) *S*-Aorist
b) *Iṣ*-Aorist
c) *Siṣ*-Aorist
d) *Sa*-Aorist

The common feature of all these seven form is that augment *'a/ā'* is added to the root by the rules *laṅ- luṅ-lṛṅikṣvaḍudāttaḥ*[2] *and āḍajādīnām*[3] Being

1. 3.2.110
2. 6.4.71
3. 6.4.72

ārdhadhātuka, roots are liable to take *i*[1] (*seṭ* roots) take intermediate *i* and no intermediate *i* is added to the *aniṭ* roots. Some roots take intermediate *i* optionally (*weṭ* roots)

Rules and Forms of different types of Aorists

1. *NON SIGMATIC AORISTS*

A. *Simple Aorists*

i) *Root-Aorist (sic luk luṅ)*

It has been generally remarked that this aorist is like an imperfect, of the root-class without corresponding present indicative, but with all the other parts make up a complete present-system.

In root-class, there is no class-sign and the personal endings are directly added to the stem. The accent falls on the augment, prefixed to root.The root has the *guṇa*-strengthening.

Rules for this type of aorist are:

1. A few roots ending in *ā,e,o* which take this form in the *parasmaipada* and the root *bhū*(to be).

Roots are:

i) *gā*(to go); *dā* (to give); *dhā*(to place); *pā*(to drink); *bhū*(to be); *sthā*(to stand).[2] These roots retain their long final vowel.[3]

ii) optionally; *ghrā*(to smell); *dhe*(to drink); *śo*(to sharpen); *cho*(to cut) *so*(to destroy)[4]

---

1. *ārdhadhātukasyeḍ valādeḥ*
2. 2.4.77;
3. except before *uḥ of 3rd person plural. ā* is rejected here.
4. 2.4.78

iii) optionally the roots of *Tanādi* class[1] in 2nd and 3rd person singular *ātmanedapa* in *thās* and *ta*.[2]

2. Root *iṅ* (to go) is replaced by *gā* in *luṅ*.[3]

3. i) In *ātmanepada*, *sic* becomes *kit* for the roots *sthā* and *ghu*[4] and

ii) *ā* is replaced by *i*.[5]

4. Root *bhū* takes the augment *vuk*.[6]

Conjugations

dā-'to give' *(in Parasmaipada)*

Singular	***Dual***	***Plural***
1. *adām*	*adāva*	*adāma*
2. *adāḥ*	*adātam*	*adāta*
3. *adāt*	*adātām*	*aduḥ*

bhū-'to be' (in *Parasmaipada*)

1. *abhūvam*	*abhūva*	*abhūma*
2. *abhūḥ*	*abhūtam*	*abhūta*
3. *abhūt*	*abhūtām*	*abhūvan*

ii) ***A-AORIST*** (*Aṅ luṅ*)

It is an aorist with tense-stem ending in *a* or with union vowel *a* before the endings, corresponding to imperfect of the a-class. Whithey, W.D.,remarks that this aorist is in the later

1. 2.4.79: Nine roots ending in *n* or *ṇ* (Maxmuller)
2. before which the final nasal is rejected 6.4.37
3. 2.4.45
4. 1.1.20 (*dā-dhā-ghu-atāp*);
5. 1.2.17
6. 6 4.88 (*bhuvo vug-luṅ-liṭoḥ*)

language allowed to be made from a large number of roots (near a hundred)____its closest analogy is with the imperfect a- class, its inflection is the same with that in all particular; and it takes in general a weak form of root.

Rules for derivation

1. Roots, which take this form are:

i) *as* (to throw), *vac* (to speak) *khyā*(to speak). Being *ṅit*[1] *guṇa* or *vṛddhi* do not take place.

ii) *as* takes the augment *thuk*[2] (*āstham*); *brū* is replaced by *vac* and takes the augment *um*[3]

iii) *lip* (to paint); *sic*(to sprinkle); *hve*(to call) in *parasmipada*[4] and optionally *ātmanepada*.[5]

iv) Roots classed as beginning with *puṣ*; beginning with *dyut* and those marked with *lṛ* in the parasmaipada.[6] Root *ad* is replaced by *ghalṛ*.[7] patlṛ takes *pum*.[8]

v) The roots *sṛ*(to go), *śās*(to order) and *ṛ* (to go) in *parasmaipada* and *ātmanepada*[9]

vi) optionally verbs marked by *ir*, but in *parasmaipada* only.[10]

---

1. *aṅ* has '*ṅi*' as *it saṁjñā*.
2. 7.4 17
3. 7.4.20
4. 3.1.53
5. 3.1.54
6 3.1.55, *dyut* takes *parasmaipada* affixes optionally. (1.3.61
7. 2.4.37
8. 7.4.19: Being *mit*, added after the last vowel.
9. 3.1.56
10. 3.1.57

optionally *jṛ*(to fail), *stambh*(to stiffen), *mruc*(to go), *mluc* (to go) *gruc* (to steal) *gluc* (to steal) *gluñc* (to go) *śvi* (to grow) but in *parasmaipada* only.[1]

2. Roots ending in *ā,e,i* drop these vowels and a base ending *a* is substituted:

hve substitutes *hva*; *śvi* substitutes *śva*;[2]

3. Roots ending in *ṛ* and the root *dṛṣ* take *guṇa*,[3] and then form a base ending in *a*, as *asarat*; *adarśat*.

4. Roots with penultimate nasal, drop it. *skand* (to step) > *askandam*

5. The vowel in *śas* is replaced by *i*;[4] Thus we have *a,ś.iṣat*.

Some Conjugations

1. *sic* (to sprinkle)

Parasmaipada

	Singular	***Dual***	***Plural***
1.	*asicam*	*asicāva*	*asicāma*
2.	*asicaḥ*	*asicatam*	*asicata*
3.	*asicat*	*asicatām*	*asican*

Ātmanepada

1.	*asice*	*asicāvahi*	*asicāmahi*
2.	*asicathāḥ*	*asicethām*	*asicadhvam*
3.	*asicata*	*asicetām*	*asicanta*

---

1. 3.1.58
2. 7.4.18 (*śvayateraḥ*)
3. 7.4.16
4. 6.4.34

2. *hve* (to call).

Parasmaipada

1.	*ahvam*	*ahvāva*	*ahvāma*
2.	*ahvaḥ*	*ahvatam*	*ahvata*
3.	*ahvat*	*ahvatām*	*ahvan*

Ātmanepada

1.	*ahve*	*ahvāvahi*	*ahvāmahi*
2.	*ahvathāḥ*	*ahvethām*	*ahvadhvam*
3.	*ahvata*	*ahvetām*	*ahvanta*

B. ***Reduplicated-Aorist*** (*caṅ luṅ*)

Its characteristic is a reduplication of the radical syllable. For the purpose of the reduplication it follows the general rules of reduplication.An *a*-vowel and *ṛ* (or *ar*) are usually, with some exceptions, repeated by an *i*-vowel. Whitney remarks that, in regard to quantity, this aorist aims always at establishing a diversity between the reduplicating and radical syllables, making the one heavy and the other light. And the preference is very markedly for a heavy reduplication and a light root-syllable-which relation is brought wherever the conditions allow. The inflection of the reduplicated aorist is like that of an imperfect of the second general conjugations.

Rules for derivations

1. A few primitive roots, and the very numerous class of *cur* roots, the denominatives and causatives in *ay* reduplicate their base in the second aorist, taking the augment before, and the usual terminations of the imperfect.

2. The primitive verbs taking this form are:

śri(to go), *dru* (to run), *su* (to flow), *kam*[1] (to love), if expressing the agent, as *aśriyat*. and

3. Optionally *śvi* (to grow), *dhe* (to suck). If expressing the agent.[2] Their reduplicative syllable, as far as consonants are concerned, is formed like that of the reduplicated perfect.

4. (i) the roots in *ay*[3]. drop *ay* and reduce their *guṅa* and *vṛddhi* to simple base vowels, *ā* to *a*,etc. *e* to *i*; *o* to *u*; *ar*, *ār* to *r*[4]. The rule about shortening is applied first and then the reduplication takes place.

(ii) *ṇi* is elided before *aniṭ ārdhadhātuka* affix[5]. The vowel of the reduplicative syllable is lengthened[6].

(iv) There are certain exception to this rule (7.4.1). Exceptions are given in rules 7.4.2 and 7.4.3. Exceptions are some denominatives: From *māla* > *amamālat*; root *śas* > *aśaśāsat*; and the roots which has indicatory *ṛ*, as *bādhṛ* > *ababādhat*[7]; In the same way *bhrāj (to shine); bhās (to shine), bhāṣ (to speak); dīp (to lighten); jīv* (to live); *mīl* (to meet) and *pīḍ*[8] (to vex)

---

1. *caṅi* affix is added to these roots 3.1.48. Being *ṅit guṇa-vriddhi* do not take place.
2. 3.1.49
3. *ṇyanta*
4. 7.4.1
5. 6.4.51
6. 7.4.94
7. 7.4.2
8. 7.4.3

The roots *śvi*[1] and *hve*[2]. lendergo the process of *samprasāraṇa* when *caṅ* follows and *ṇi* is added to *śvi*, The roots beginning with vowel, the second syllable is to be reduplicated, as *aś* > *āśiśam*, but if the root ends in double consonant, the first letter of which is *n,d* or *r*, the second letter, then is reduplicated not the *n*, *d* ~~or~~ *r*[3].

Roots *pā* (to drink), *sthā* (to stand) and *ghrā* (to smell) can be considered as irregular forms[4]. we have: *pā* > *apīpyat*; *sthā* > *atiṣṭhipat* and *ghrā* > *ajighripat* or *ajighrapat*.

SOME CONJUGATIONS

Śri (to go)

Parasmaipada

1.	*aśiśrayam*	*aśiśrayāva*	*aśiśrayām*
2.	*aśiśrayaḥ*	*aśiśrayatam*	*aśiśrayata*
3.	*aśiśrayat*	*aśiśrayatām*	*aśiśrayan*

Ātmanepada

1.	*aśiśraye*	*aśiśrayāvahi*	*aśiśrayāmahi*
2.	*aśiśrayathaḥ*	*aśiśrayethām*	*aśiśrayadhvam*
3.	*aśiśrayata*	*aśiśrayetām*	*aśiśrayanta*

2. SIGMATIC (OR SIBILANT AORIST)

In this type of aorist, the tense-sign *s* is added to the root either directly or with preceding augument *i*, its endings, usually, are immediately added to the tense-sign.

---

1. 6.1.31
2. 6.1.32
3. 6.1.3
4. 7.1.4-6

In certain number of roots it is added with a union-vowel *a*

A few number of roots take *s* for its formations.

In the vast majority of cases, the sibilant is the final of the tense-stem.

With the augment *i* the tense-sign is *iṣ*, and in a small number cases, *iṣ*,is increased by *s*, making the whole addition *siṣ*.

Thus, we have the four varieties of sibilant-aorist:

A) With endings added immediatly, directly to the sibilant:---

i) With *s* simply after the root: *s*-aorist.

ii) With *i* before the S : *iṣ-aorist.*

iii) With *i*, ll and *S* at the end of root: *siṣ*-aorist.

B) With *a* added to the sibilant before the ending:

iv) With sibilant and *a* : *sa*-aorist.

Personal terminations are:

In *Parsmaipada*

	Singular	***Dual***	***Plural***
1st person	*am*	*va*	*ma*
2nd person	*s(:)*	*tam*	*ta*
3rd person	*t*	*tām*	*an*

In *Ātmanepada*

	Singualr	***Dual***	***Plural***
1st person	*i*	*vahi*	*mahi*

2nd prson	*thāḥ/thās*	*āthām dhvam*
3rd person	*ta*	*atām anta*

The general rule for derivation of this aorist is:

augment *a/ā*+root + *s* or syllable containing *s*+ personal terminations.

i. **S-AORIST**

(Suffix *s* ; athematic endigs: *vṛddhi* in *parasmaipada, guṇa* or weak grade in *ātmanepada).*

The terminations of this form are as follow.

Parasmaipada

Singular	***Dual***	***Plural***
1st person *sam*	*sva*	*sma*
2nd person *sīḥ*	*stam/tam*	*sta/ta*
3rd person *sīt*	*stām/tām*	*sta/ta*

Ātmanepada

1st person *si*	*svahi*	*smahi*
2nd person *sthāḥ*	*sāthām/thāḥ*	*dhvam/ḍvam*
3rd person *sta/ta*	*sātām*	*sata*

Rules for derivation of S-AORIST:

It differs from the *iṣ*-aorist that *iṣ*-aorist is peculier to the verbs which take the intermediate ī (*seṭ- dhātus*) where this aorist rejects the insertion of *i* (*aniṭ-dhātus*). Thus it is formed mainly from the *aniṭ-roots.*

2. A final vowel and short medial vowel take *vṛddhi* in the *parasmaipada*; *kṣip* > *akṣaipsam*; *śi* > *aśaiśam*[1], *pac* > *apākṣit*[2].

3. *guṇa* takes place in *ātmanepada* if the verb ends in *i,u*[3] *śi* > *aśeṣi*, otherwise no change of vowel; *kṛ* > *akṛṣi*.

4. The terminations beginnig with *st* or *sth* drop their *s* if the base ends in a short vowel or in a consonant, except nasals, as *ksip* > *akṣaips-tam* (in 2. p. dual); *akṣaip-tam* (in 3p.dual); *akṣaipa-ta* (2.p.plural).

5. The roots *sthā (to stand) dā(to give)*, *dhā* (to place), *de* (to pity), *dhey* (to feed), do (to cut) change their final vowels into *i* before the termination of the *ātmanepada*[4]as, *sthā* > *upāsthita*.

6. *mi* (to throw), *dī* (to decay) change their final vowel to ā in the *ātmanepada and lī* (to stick) does so optionally[5] as *amāsta, adāsta, alāsta or aleṣṭa*.

In the *Parasmaipada* these verbs take the *iṣ* form of aorist.

7. *han* (to kill) drops its nasal in the *ātmanepada*[6]. as *ahata, ahasātām*.

8. *gam* (to go) drops its nasal in the *ātmanepada* optionally[7]. as *agata* or *agaṁsta*.

---

1. 7 2.1
2. 7.2.3
3. 1.2.12
4. 1.2.17
5. 6.1.50-51
6. 1.2.14
7. 1.2.13

9. *yam* drops its nasal, according to its various meanings, necessarily or optionally.[1]

as *upāyata* (the espoused) or *upāyamsta.*

Some Conjugations

S-aorist (Without intermediate *i*)

1. Root ending in consonant—***kṣip*** 'to throw' *Parasmaipada-Vṛddhi* takes place.

Singualr	***Dual***	***Plural***
1. *akṣaip-sam*	*akṣaip-sva*	*akṣaip-sma*
2. *akṣaip-sih*	*akṣaip-tam*	*akṣaip-ta*
3. *akṣaip-sīt*	*akṣaip-tām*	*akṣaip-suh*

Ātmanepada-No change

1. *akṣip-si*	*akṣip-svahi*	*akṣip-smahi*
2. *akṣip-thaḥ*	*akṣip-sāthām*	*akṣip-dhvam*
3. *akṣip-ta*	*akṣip-sātām*	*akṣip-sata*

2. Verb ending in ī vowel---***nī*** 'to lead' *Parasmaipada*-(*Vṛddhi* takes place)

Singular	*Dual*	*Plural*
1. *anaiṣam*	*anaiṣva*	*anaiṣma*
2. *anaiṣīḥ*	*anaiṣṭam*	*anaiṣta*
3. *anaiṣīt*	*anaiṣṭām*	*anaiṣṭuḥ*

Ātmanepada---(*guṇa* takes place)

1. *aneṣi*	*aneṣvahi*	*aneṣmahi*
2. *aneṣṭhāḥ*	*aneṣāthām*	*aneḍhvam*
3. *aneṣṭa*	*aneṣātām*	*aneṣata*

---

1. 1.2.16

3. Verb ending in ṛ vowel---***kṛ*** 'to do'

Parasmaipada---(vṛddhi takes place)

1.*akārṣam*	*akārṣva*	*akārṣma*
2. *akārṣīḥ*	*akārṣṭam*	*akārṣṭa*
3. *akārṣīt*	*akārṣṭām*	*akṛṣuḥ*

4. Verb ending in ā vowel–***dā*** 'to give'

Ātmanepada only: *ā* changes to i.

1. *adiṣi*	*adiṣvahi*	*adiṣmahi*
2. *adithāḥ*	*adiṣātām*	*adiḍhvam*
3. *adita*	*adiṣātām*	*adiṣata*

5. Verb ending in *h*---***dah*** 'to burn'

P.sing 1. adhākṣam 2. adhākṣīḥ 3. adhakṣīt

*A.*sing.1. *adhakṣ 2 adagdhāḥ 3. adagdha*

6. Verb ending with penultimate *ṛ-sṛj* 'to let off'

P.sing. 1.asrākṣam 2 asrākṣīḥ 3 asrākṣīt

A sing. *1.asṛkṣi 2. asṛṣṭshaḥ 3. asṛṣta*

ii) ***IṢ*-AORIST**

(suffix *iṣ*; athematic endings; *vṛddhi* or *guṇa* in *parasmaipada*; *guṇa* in *ātmanepada*)

Terminations of this form are (in *Parasmaipada*):-

	Singular	Dual	Plural
1st person	*iṣam*	*iṣva*	*iṣma*
2nd person	*īḥ*	*īṣṭam*	*iṣṭa*
3rd person	*īt*	*iṣṭām*	*iṣuḥ*

In Ātmanepada

	Singular	Dual	Plural
1st person	*iṣi*	*iṣvahi*	*iṣmahi*
2nd person	*iṣṭhāḥ*	*iṣāthām*	*iḍhvam/iḍhvam*
3rd person	*iṣṭa*	*iṣātām*	*iṣata*

Rules for devivation of *iṣ*-AORIST:---

1. In this form of aorist, the intermediate *i* is added as a part of the terminations[1]. to the roots known as *seṭ*. So the verbs are liable to take intermediate *i*.

2. In *parasmaipada* final vowel takes *vṛddhi*,[2]. *śri* > *aśrāyīt*.

3. In *ātmanepada*, final vowel takes *guṇa*, and also guṇa takes place for medial or initial vowel; *budh* > *abodhiṣam; abodhiṣi* in *ātmanepada*.

4. The vowel *a* followed by a single final consonant, may or may not take *vṛddhi* in *Parasmaipada* if the verb begins with consonant;[3]. *kaṇ* > *akāṇiṣam* or *akaṇiṣam*.

5. Roots ending in *al* or *ar* always take *vṛddhi* in the *Parasmaipada;*[4]. *Jval* > *ajvālīt*; *kṣar* > *akṣārīt*.

6. In the same way in *vad*[5]. (to speak) and *vraj*[6] (to go), *a* takes *vṛddhi* but not in root-base

1. 7.2.35
2. 7.2.1
3. 7.2.7
4. 7.2.2
5. 7.2.3; *avādīt*
6. 7.2.3; *avrājit*

ending in consonant taking augment[1]. *i*; *divu > adevīt; citi.*[2]

7. Roots ending *h,m,y,*the roots *kṣaṇ* (to burt), *śvas* (to breathe) and the roots of the *cur*-class, roots with *e* do not take *vṛddhi*[3], *agrahīt; avyayīt akṣṇīt; aśvasīt.*

8. In desiderative base, *guṇa* does not take place; *budh > abubodhiṣiṣam.*

9. Intensives in *y*, if preceded by a consonant, must, certain denominatives in *y* may, drop their final *y*.[4]

If *y* is preceded by a vowel, *y* is left between the final vowel and the intermediate *i*;

bhid(to cut) > *Int.*base *bebhidy* > Aor.*Ātman. abebhidiṣi. bhū* > Int.base *bobhūy* > Aor. *Ātm. abobhūiṣi.* Denom. base *namasy* > *Aor. anamasyiṣam* or *anamiṣam.*

10. The root *han* is replaced by *vadh; avadhīi*, but in *ātmanepada* endings *han* is optionally replaced by *vadh* and proceded by *ā*[5], *han* takes *ātmanepada* affixes.[6] *avadhiṣṭa*[7]. or *āhata*[8].

11. The augment *iṭ* is lengthened after *grah*[9].

---

1. 7.2.4
2. *acetīt*
3. 7.2.5
4. Maxmūlar, p.181
5. 2.4.43
6 2.4.44
7. 1.3.28
8. 6.4.37
9. 7.2.37

Ātmanepada : (*guṇa* takes place)

1.*abodh-iṣi*	*abodh-iṣvahi*	*abodh-iṣmahi*
2. *abodh-iṣṭhāḥ*	*abodh-iṣāthām*	*abodh-idhvam*
3. *abodh-iṣṭa*	*abodh-iṣātām*	*abodh-iṣata*

iii) **siṣ-AORIST**

(Suffix *siṣ*, athematic endings; *parasmaipada* only).

Parasmaipada

	Singular	Dual	Plural
1st person	*s-i-ṣām*	*s-iṣva*	*s-iṣma*
2nd person	*s-īḥ*	*s-iṣṭam*	*s-iṣṭa*
3rd person	*s-īt*	*s-iṣṭām*	*ṣ-iṣuḥ*

Rules for derivation of *Siṣ*-Aorist:

1. This aorist is conjugated in *parasmaipada*, only. *s* is added to the end of root before the verb takes the aorist terminataions, and after *s* the root employs the usual terminations with *i*; *iṣam*.

2. Most of the verbs taking this form of the aorist end in ā or in diphthongs which take ā as their substitute. This *ā* remains unchanged.

3. Three roots ending *m* take this form;

yam (to hold) *ram* (to rejoke) *nam* (to bend)[1]; we have; *ayaṁsīt*.

SOME CONJUGATIONS:

yā 'to go' *in parasmaipada* only.

---

1. 7.2.73; *yam-ram-namātām sak ca.*

Singular	Dual	Plural
1. *ayāsiṣam*	*ayāsiṣva*	*ayāsiṣma*
2. *ayāsīḥ̄*	*ayāsiṣṭam*	*ayāsiṣṭa*
3. *ayāsīt*	*ayāsiṣṭām*	*ayāsiṣuḥ*

nam 'to bend' in *parasmaipada* only

1. *anaṁsiṣam*	*anaṁsiṣva*	*anaṁsiṣma*
2. *anaṁsīḥ*	*anaṁsiṣtam*	*anaṁsiṣṭa*
3. *anaṁsīt*	*anaṁsiṣṭām*	*anaṁsiṣuḥ*

iv) ***Sa*-AORIST**

(Suffix *s* with thematic endings; *parasmaipada* only).

Parasmaipada

	Singular	Dual	Plural
First Person	*sam*	*sāva*	*sāma*
Second Person	*saḥ*	*satām*	*sata*
Third Person	*sat*	*satām*	*san*

Ātmanepada

First Person	*si*	*sāvahi/vahi*	*sāmahi*
Second Person	*sathāḥ/thāḥ*	*sāthām*	*sadhvam/dhvām*
Third Person	*sata/ta*	*sātām*	*santa*

Special Rules for derivation of *Sa-AORIST*

1. Some roots ending in *sṣsh preceded by i u ṛ ḷṛ take the terminations of this aorist, without any intermediate i*[1]. Their radical vowel remains unchanged ; *ś* replaced by *ṣ; and ṣ by k*[2].

---

1. 3.1.45; the affix is *ksa*; *dṛś* is exception (3.1.47)
2. *ksa* being *kit, guṇa, vṛddhi* do not apply; *8 2 36,41*

2. The root *śliṣ* takes this form only if it means to embrace[1]

3. The root *duh* (to milk) *dih* (to anoint) *lih* (to lick) *guh (to hide) may take in ātmanepada.*

thaḥ instead of sathāḥ, *tā* inplace of *sata*, *vahi* instead of *sāvahi* and *dhvam* instead of *sadhvam.*

4. *a* of *ksa* is elided when follwed by *ajādi* affix[2]; *diś* > *adikṣan.*

SOME CONJUGATIONS

1. Root *diś* 'to show'

Parasmaipada

1. *adikṣam*	*adikṣāva*	*adikṣāma*
2. *adikṣaḥ*	*adikṣatam*	*adikṣata*
3. *adikṣat*	*adikṣatām*	*adikṣana*

Ātmanepada

1. *adikṣi*	*adikṣāvahi*	*adikṣāmahi*
2. *adikṣathāḥ*	*adikṣāthām*	*adikṣadhvam*
3. *adikṣata*	*adikṣātām*	*adikṣanta*

2. *guh* 'to hide'

P. Sing.	1. *aguhkṣam*	2. *aghukṣaḥ*	3. *aghukṣat*
Ā. Sing.	1. *aghukṣi*	2. *aghukṣatha*	3. *aghukṣata*

3. *lih* 'to smear'

*P.*Sing.	1. *alikṣam*	2. *alikṣaḥ*	3. *alikṣat*
*A.*Sing.	1. *alikṣi*	2. *alikṣathāḥ*	3. *alikṣata*

---

1. 3.1.46
2. 7.3.72

Chapter-IV

Conclusions

Meaning, use and Historical Development of Aorist

Aorist is one of the past-form of three past-forms *laṅ* (imperfect), *liṭ* (perfect) and *luṅ* (aorist) mentioned in *Aṣṭādhyāyī, and is used to mention the action which took place very recently (say, within twenty four hours). Siddhāntakaumudi* explains the point as, the affix *Luṅ* may be employed after a root in the sense of the past generally (*Luṅ bhūtārthavṛtteḥ dhātoḥ*). As the two prior *sūtras* [(*anadyatane laṅ*) (*Aṣṭ*.3.2.111); *Parokṣe Liṭ* (*Aṣṭ* 3.2.115)] denote the past before 3 A.M. of the proceding day, this tense denotes the past since then.

But it has been observed by the scholars that this value of aorist is seen in the older language (Vedic Lang) but in the later classical Sanskrit imperfect, perfect and aorist are undisciminated past tenses (Whitney, para 532).

Burrow observes that the use of aorist in later classical (Sanskrit) Language "dies out".

According to Whitney, the aorist of the classical Sankrit is simply a preterit, equivalent to the imperfect and perfect, and frequently coor-

dinated with them. He adds that 'no distinction of meaning has been established between the modes of present system and those of the perfect and aorist-system.

Pāṇini, in relation to structure and meaning, mentions seven types of Aorist:

vikaraṇa lug-luṅ	(Root-Aorist)
aṅ-luṅ	(*a*-aorist)
caṅ-luṅ	(Reduplicated Aorist)
aṃṭ-siʃluṅ	(*s*-Aorist)
seṭ-siʃluṅ	(*iṣ*-Aorist)
sak-seṭ-siʃluṅ	(*siṣ*-Aorist)
ksa-luṅ	(*sa*-Aorist)

A brief reference to the evolution of the *Aorist Aspect* is not out of place here: As the things stand, three types of aorists can be reconstructed for the Proto-Indo-European.

These aorists are:

I. The root Aorist.

II. The sigmatic Aorist.

III. The thematic Aorist.

The root aorist can be formed from the following types of roots:

1. *Ceh* (where *h* is a laryngeal)

2. *CReR*

3. *CReh*

4. *CṚC* (with Zero grade vocalism of the root of the type CeRC).

Compare the following examples:

Skt. *ádhāt<a+dheh+t*

áśrot<a+kleu+t;

áprāt<a+pleh+t gk. Plet-o. and

ádṛśma <a+dṛk+ma

Normally, the fully grade of vocalism is attested throughout the paradigm; this is different from the imperfect of the roots where full grade vocalism is attested in the singular and zero grade vocalism of the root is attested in the dual and the plural.

The second type of aorist that can be reconstructed is -*s* aorist. The root vocalism of the -*s* aorist is in *vṛddhi* grade and this vocalism is attested throughout the paradigm. Thus,

a-vāk-ṣ-am<a+vok+s+m and o— ō— ā,

regular fashion. Compare also *abhārṣam* from the root√*bhṛ*.

In Greek an-s aorist of *deik* should be *deik+s* but root vowel looses its length under osthoff rule. This *e-dıksa<e-dēik+s+ṃ;* avestan *dāiś<daīk+s+t* and latin *dīxı<deik+si.*

The third or thematic aorist is rare. Thus we have *avidat* Skt.*eide <a+vid+a+t;* Greek *ēluthe.* The origin of the thematic aorist seems to be intersting. Comapre the forms from Greek:

leip-ō 'I leave'

e-lip-o-n Aorist

ıe-loip-ā

Notice that the present has full grade root vocalism, the aorist has zero grade vocalism and the perfect has *-o-* grade vocalism along with the reduplication. This contrast in vocalism along with accentual mobility could have been responsible for the rise of the thematic aorist.

The same kind of vocalism is also responsible for the evolution of the 6th class present of Sanskrit of the type *tudati*.

There are four other asrist in Sanskrit. These are-*sa-aorist -iṣ-aorist, -siṣ-aorist* and the reduplicated aorist.

The-*sa-* aorist is formed by only *ten roots* in the Vedic texts. These roots are of the type *CeR* in IE, and CaRC where the second *-C* is *j ś, ṣ* and *h*.

All these consonants become *k* before *s* and they attest zero grade vocalism. The zero grade vocalism is comparable to the zero-grade of the thematic aorists. Thus it appears *-sa-aorist* is thematized form of the *-s-* aorist, other things being equal.

The *-iṣ*-aorist is simply *seṭ* root aorist or aorist of the roots of the type *CeCh* in IE and the *-siṣ*-aorists is a mixture of *-iṣ-* and the *-s-* aorists. We could work out a complete history of the rise of these aorists but that is not the main aim of this dissertation.

Finally the reduplicated aorist is historically a problem. These aorists have very often causative meaning and these reduplicated aorists are connected with *-aya-* forms and this affix is a causative forming suffix in the Skt. language.

Finally the aorist very aften are semantically indefinite past forms. Though it is often found that aorist, perfect and imperfect are interchangable, however historically these must have been different as attested in Homeric greek and the old portions of the *Ṛg-veda*.

Pāṇinian grammar[1]. classifies its verbal stems into ten types[2]. Aorist is one of these types and denotes an action which has a reference to a simple past. Some think that originally in Proto-(or primitive) Indo-European [PIE), the aorist has nothing to do with tense, and a past sense could be expressed by means of an aorist stem only if it was supported by the augument[3]. But in *Pāṇini's Aṣṭādhyāyī* the aorist has become *simple past*, when the action have taken place in the immediate past. In sanskrit it is formed by seven different types of stem which are again classified in two classes. Kurylowicz keeps these under '**two principal allomorphs**'. According to him[4]: the various formations of the Indo-european aorist may be reduced to two principal allomorphs:

1. The apophonic type represented by different forms of the verbal root, e.g. Skt. *aprāt, adāt, arucat.*

2. The sigmatic aorist.

---

1. generally known as *aṣṭādhyāyī* and is considered as descriptive grammar
2. *Lakāra*
3. Murti, M.S.,(1984); p.269
4. J.Kurylowicz (1964); p.109

He notes that -*iṣ*-and -*siṣ*- aorists are only historical variants of -s-aorist and -*sa*-aorist belong to the thematic by its origin.

The seven types of aorist, which are further classified in two groups, as A. *Non-Sigmatic* and B. *Sigmatic*, are:

A. *Non-sigmatic Aorists*

i. Root Aorist (I)

ii. A-Aorist (II)

iii. Reduplicated Aorist (III)

B. *Sigmatic Aorists*

i S-Aorist (IV)

ii. Iṣ-Aorist (V)

iii. Siṣ-Aorist (VI)

iv. Sa-Aorist (VII)

According to Kurylowicz it seems permissible to consider thematic mediopassive aorist as an innovation induced by the proportion imperfective active: imperfective medio passive (*bharat: bharata*), and to assume the following indo-european[1]. distribution of the fundamental types of the aorist:

active:	athematic	thematic	sigmatic
mediopassive:		athematic	sigmatic

The general trend of the development of Aorist, therefore has been to replace the athematic by the sigmatic mediopassive.[2]

---

1. T. Burrow notes that Sanskrit lang. is more analysable and its roots are more easily separable from accretionary elements in comparision to other IE lgs.

2. The inflectional categories of Indo-European (1964); p.79

It is seen that the non-sigmatic root aorist (*ādhāt*) and the *a*-aorist (*āruhat*) do not differ in their formation from the imperfects of the corresponding present classes (*āyāt, atudat*)[1].

Some scholars believe that the aorist and imperfect tenses are specialisations of a single past tense characterised by the augment and the 'secondary' endings. From the point of view of its formations, the imperfect might be looked on as an 'aorist of the present stem.' An aorist is an aorist, and not an imperfect, if no corresponding present form exist.[2] Thus '*ayāt*' (he went) from *yā* (to go) and '*atudat*' (he struck) from tud (strike), are imperfect forms because they correspond to the presents '*yāti*' (he goes) and '*tudati*' (he strikes). But '*adhāt*' (he put) and '*agamat*' (he went) are aorist forms derived directly from the root, since *dhā* (to put) and *gam* (to go) form presents of a different kind, '*dadhāti*' and *gachhati*' with corresponding imperfect forms '*adadhāt*' and '*agachhat*'. According to Whitney[3]. in regard to form, different varieties of aorist are alike, in the indicative, augment-preterits to which there does not exist any corresponding present; in regard to meaning exchangable with imperfects and perfects. Macdonell[4]. remarks on the point that it lacks of a corresponding present, there are however, sometimes sporadic forms from the same stem as

---

1. T. Burrow, p.332
2. Michael Coulson (Sanskrit); on the basis of Macdonell, Whitney...)
3. para 825 (Sanskrit grammer)
4 Vedic Gammer, para 497 (p.365); note p. 365

the aorist beside the normal ones; thus the 2. du. pres *'kṛ-thas'* occurs besides the numrous regular forms of the *nu*-class.

Burrow further views that the two types of preterite, imperfect and aorist, have arisen by specialisation out of system with undifferentiated preterite, and the continued existence of forms common to the two remains as an indication of this.[1] The difference in function depends on whether a corresponding present exists or not. But the reduplicated aorist is less closely connected with corresponding present stems. It has undergone special development of its own, though it cannot be separated from the reduplicated type of present.

Gonda assumes that the existence of a single present-aorist formation at an early period and which, in the course of time, must have become differentiated.[2]

Derivational Process of *Pāṇini*

Pāṇini's Aṣṭādhyāyī is, as it is generally considered, a set of rules (*Sūtras*)[3], ordered in a way which, on one hand consist 'utmost brevity and algebric' condensation[4] and on the otherhand, generate on in finite number of Sanskrit words and sentences. Stall takes it as descriptive grammar, not prescriptive[5]. These rules serve a purpose to

1. T. Burrow; Sanskrit lanuage, p, 332
2. J.Gonda; Old Indian, p.88
3. George Cardona accounts for about 3983 sūtras,
4. Ram Nath Sharma, vol.1,p.44
5. Quoted by George Cardona (1980), p.182. The first Indian print)

derive forms[1] and provide affixes to introduce after the bases under the given conditions. Items are derived terminating in verbal or nominal endings. Bases (*prakṛti*) and affixes (*pratyaya*) are, thus, the basics to the derivational system of *Paṇini*, The derived forms are called *pada*[2]. The bases are of two types: Verb roots (*dhātu*) and nomial (*prātipadika*). These may be either primitive or derived. Primitive verb roots appear in the *Dhātu-pāṭha* and primitive nominal bases are found in *gaṇa-pāṭha (lexicon)* , *George Cardona notes that Pāṇini* accepts that verb roots are basic units to which affixes are added, and basic derivational procedure thus, consists in introducing affixes to bases[3]. under condition. His technique, therefore, is considered as **'Context- Sharing.'**

The basic principle of interpretation of *sūtras* is-

i) a *sūtra* should be understood at place where it first appears in grammar. (*yathoddeśa*). It focusses the PHYSICAL CONTEXT.

ii) a *sūtra* should be understood at the place where it is operative (*sthān*). It focusses the *FUNCTIONAL CONTEXT*. The different *sūtras* are presented in sets or blocks in such a way that larger set contains one or more smaller sets. Larger set is considered DOMAIN (*adhikāra*).

There are four domains in the *aṣṭādhyāyī*.[4]

---

1. Also called *lakṣya*
2. *Sup-tiṅantam padam* (1.4.14)
3. Pāṇini, p.185
4. Ram Nath Sharma, p.60

a) **Controlling Domain**

First book of *aṣṭādhyāyī* which contain definitional and interpretational rules.

b) **Obligatory Domain**

Third through fifth books of *aṣṭādhyāyī* which are scanned by every base-input.

c) Rules contained in last quarter of book six and the seventh book.

d) ***PADA* Domain**

Rules contained in last three quarters of the book eight are lineary ordered.

Proper interpretation and operation of the rules is such that a lower level rule expects the presence of a higher level rule or elements there from . So the recurrence (*anuvṛtti*) is the key to interpret rules. The first rule of domain is termed as heading rule (*adhikāra sūtra*). *A string falls within the application of a domain or an interior domain if and only if it meets the requirements laid by the Functional domain.*[1]

Thus the rules are interdependent for the correct and full interpretation of the *Sūtrās* and for the derivations of the words (*Pada*). *Patñjali* remarks that two rules do not become different simply because they are at different places, they may share a single context.[2]

Thus in *aṣṭādhyāyī* arrangement of rules, rules operate within a given domain and also, across the domain boundaries.

---

1. Ibid, p.61
2. M.Bh.III.na *videśastham iti kṛtvato nānāvākyam bhavati. videśastham api sad ekam vākyam bhavati.*

EXAMPLE (With reference to Aorist-derivations)

Sūtra ***acaḥ karmakartari*** (3.1.62) is composed of two *padas:*

1. *acaḥ* in fifth *vibhaktiḥ* (*apādāna* case)

2. *karmakartari* in seventh *vibhaktiḥ (adhikaraṇa* case) Now, for the proper interpretation of this *Sūtra*, it depends on the following *Sūtras:*

pratyayaḥ (3.1.1)

paraśca (3.1.2)

dhātorekāco halādeḥ kriyāsamabhihāre yaṅ.(3.1.22)

cli luṅi (3.1.43)

cleḥ sic (3.1.44)

ciṇ te padaḥ (3.1.60)

dīp-jana-budha-pūritāyipāyibhyo' nyatarasyām (3.1.61)

These *sūtras* will contribute their elements for the proper interpretation of the *Sūtra 3.1.62*. With the help of *anuvṛtti* (recurrence) the follwing string will take place.[1]

Pratyayaḥ 1/1 *Paraśca* 1/1 *dhātoḥ* 5/1 *ciṇ* 1/1

te 7/1 *anyatarasyām* 7/1 *acaḥ* 7/1 *karmakartari* 7/1

ajantad dhātoḥ parasya cleḥ pratyasya kiarmakartari ta śabde parataścinādeśo bhavati anyatarsyām.

"Affix *cli* optionally is replaced by ciṇ when the former occurs after a root verb ending in *ac* (a vowel) and when *ta*, a replacement of *Luṇ* which denotes object treated as if agent follows."

---

1. nominal endings are shown with all these elements.

Yet there are additional rules which help in the getting the proper meaning of the *sūtras* as---

tasmād ıti uttarasya (1.1.67)

tasmınnıti nırdiṣte pūrvasya (1.1.66)

ṣaṣṭhı sthāneyogaḥ (1 1.49) and the *Sandhi Sūtras.*

Therefore the *Pāṇini's* process of derivation is the process of 'reference to antecedent.'

Aorist-Markers

The general aorist marker is *cli* and it is replaced by *sıc, ksa, aṅ, caṅ* and *cıṇ.*

The seven stems of the Aorist are made in the following way:-

A) In case of *a*-conjugation, by adding *-a-*(either to the simple or reduplicated roots) and *-sa-* and

B) In case of non-thematic conjugation, by adding either nothing or *-s-*, *-iṣ-*, *-siṣ-* to the roots. The seven stems are , thus named according to their characters.

With few exceptions, the endings are constant throughout. The seven paradigms may be seen as follwows:

1. *A-AORIST*

Sic, 'to pour'

Active

a-sıca-t	*a-sıca-tām*	*a-sıca-n*
a-sica-ḥ	*a-sıca-tam*	*a-sıca-ta*
a-sıca-m	*a-sıcā-va*	*a-sıcā-ma*

Middle

a-sıca-ta	*a-sıce-tām*	*a-sıca-hıa*
a-sıca-thāḥ	*a-sıcethām*	*a-sıca-dhvam*
a-sıce	*a-sıcā-vahı*	*a-sıcā-mahı*

2. ROOT-AORIST

In this form the endings are added to the roots. There are no infix to separate them.

dā 'to give'

a-dā-t	*a-dā-tām*	*a-duḥ*
a-dā-ḥ	*a-dā-tam*	*a-dā-ta*
a-dām	*a-dā-va*	*a-dā-ma*

3. REDUPLICATED AORIST

The stems of this aorist are made by peculiar reduplication of the verbs, and *-a-* is added to it as infix. The verb is weakened before reduplicating. The inherent-*ya*-is dropped.

Some special rules of reduplication are applied that *'a'* and *'ṛ'* are reduplicated by *ı*, and the vowels of the reduplicated syllables, unless long by position, are lengthened.

jan 'to give birth'

a-jıjanat	*a-jıjana-tām*	*ajījana-n*
a-jījana-ḥ	*a-jījana-tam*	*a-jījana-ta*
a-jījana-m	*a-jījanā-va*	*a-jījanā-ma*

4. S-AORIST

This form of aorist takes *-s-* to its stem

In *parasmaıpada* endıngs, the final aṅd the short penultimate vowels of the roots take *vṛddhı.*

The 3rd and 2nd Singular forms take the help of an extra '*ī*'.

The 3rd Plural *parasmaipada* ending is -'*uḥ*'.

nī 'to carry'

a-nai-ṣ-īt	*a-nai-ṣ-tām*	*a-nai-ṣ-uḥ*
a-nai-ṣ-īḥ	*a-nai-ṣ-ṭam*	*a-nai-ṣ-ṭa*
a-nai-ṣ-am	*a-nai-ṣ-va*	*a-nai-ṣ-ma*

In *ātmanepada* endings, the final *i* and *u* take *guṇa*. The infixal *s* is always dropped between two stops, and elsewhere changes are due to *sandhi*.

a-ne-ṣ-ṭa	*a-ne-ṣ-ātām*	*a-ne-ṣ-ata*
a-ne-ṣ-ṭhāḥ	*a-ne-ṣ-āthām*	*a-ne-ḍhvam*
a-ne-ṣ-i	*a-ne-ṣ-vahi*	*a-ne-ṣ-mahi*

5. IṢ-AORIST

In this stem is formed by adding-iṣ- to the roots. In *parasmaipada* 3rd and 2nd singular it is dropped, and simple-*ī*- takes its place, the penultimate short vowels of the roots always take *guṇa*, but '*a*' becomes '*ā*.' The final vowels take *vṛddhi* in *Parasmaipada*, *guṇa* in *ātmanaipada*.

budh 'to know'

Parasmaipada

a-bodh-ī-t	*a-bodh-iṣ-ṭām*	*a-bodh-iṣ-uḥ*
a-bodh-ī-ḥ	*a-bodh-iṣ-ṭam*	*a-bodh-iṣ-ṭa*
a-bodh-iṣ-am	*a-bodh-iṣ-va*	*a-bodh-iṣ-ma*

Ātmanepada

a-bodh-iṣ-ṭa	*a-bodh-iṣ-ātām*	*a-both-iṣ-ata*
a-bodh-iṣ-ṭhāḥ	*a-bodh-iṣ-āthām*	*a-bodh-ī-ḍhvam*
a-bodh-iṣ-i	*a-bodh-iṣ-vahi*	*a-bodh-iṣ-mahi*

6. *Siṣ-AORIST*

This aorist is formed by-*siṣ*-. it is added to few roots ending in *a*, and to *yam, ram and nam*. Stem of this aorist takes place only *parasmaipada* endings.

yā 'to go'

a-yā-sīt	*a-yā-siṣ-ṭām*	*a-yā-siṣ-uḥ*
a-yā-sī-ḥ	*a-yā-sis-ṭam*	*a-yā-siṣ-ṭa*
a-yā-siṣ-am	*a-yā-siṣ-va*	*a-yā-siṣ-ma*

7. *SA*-AORIST

In this form of aorist, the infix-sa- is added to the unmodified roots, but the final consonants are always reduced to *'k'* which itself cerebralises the follwing *'s'*. Therefore the stems of the *sa*-aorist end in-*kṣa*-:

diś 'to point'

Parasmaipada

a-dikṣa-t	*a-dikṣa-tām*	*a-dikṣa-n*
a-dikṣa-ḥ	*a-dikṣa-tam*	*a-dikṣa-ta*
a-diksa-m	*a-diksā-va*	*a-diksā-ma*

Ātmanepada

a-dikṣa-ta	*a-dikṣa-tām*	*a-dikṣa-nta*
a-dikṣa-thāḥ	*a-diskā-thām*	*a-dikṣa-dhvam*
a-dikṣi	*a-dikṣā-vahi*	*a-dikṣā-mahi*

In nutshell;

1. *Luṅ* is a *ṅit lakāra*, therefore, the general *tiṅ*[1] affixes for all tenses and moods are modified as:-

a. The final '*s*' of the Ist person in *parasmaipada* is elided by the *sūtra* ***nityam ṅitaḥ*** (3.4.99), *v* and *m* therefore replace *vas* and *mas*.

b) The final *i* of the *parasmaipada* is also elided by the *sūtra* ***itaśca*** (3.4.100), therefore *ti*, *jhi* and *si* are replaced by *t*, *jh* and *s*.

iii) *tas*, *thas*, *tha* and *mip* are replaced by *tām*, *tam*, *ta* and *am* in *parasmaipada* by the *sūtra*:

tas-thas-tha-mipām tā-tam-ta-āmaḥ (3.4.101)

In *luṅ lakāra*, affix *cli* is added to a root base by the *sūtra* ***cleḥ sic*** (3.1.44).

iii) *sic* is an *ārdhadhātuka* affix by the *sūtra* ***ārdhadhātukam śeṣaḥ*** *(3.4.114)*.

s, being a *val*, the augment *it* is allowed by the *sūtra* ***a ārdhadhātukasyeḍ valādeḥ (7.2.35) and the final vowel takes the*** *guṇa substitution before it by the sūtra* ***sārvadhātukārdhadhātukayoḥ*** *(7.3.84) and also, the penultimate short vowel takes guṇa* substitution by ***pugantalaghūpadhasya ca*** (7.3.86).

IV) There is an addition of augment *īṭ* after *sic* for the roots ending in consonants.[2] and *jh* is replaced by *jus* (*us*) for *sic*[3]

V) The *ātmanepada* affixes remain unchanged.

VI) The *parasmaipada* affixes, therfore, are–

---

1. The *pratyāhār tiṅ stands for all tense affixes, generally, as tip-tas-jhi-thas-tha-mip-vas-mas-ta-ātām-jha-thās-āthām-dvam-iṭ-vahi-mahiṅ (3.4 78). The ṅ* of *tiṅ* is indicatory and elided
2. *astisico' pṛkte* (7 3.96)
3. *sijabhyastavidibhyaśca* (3.4.109)

	Singular	*Dual*	*Plural*
Ist person	*am*	*va*	*ma*
IInd person	*is/s*	*tam*	*ta*
IIIrd person	*it/t*	*tām*	*us*

VII) and *ātmanepadī* affixes are—

	Singular	*Dual*	*Plural*
Ist person	*i*	*vahi*	*mahi*
IInd person	*thās*	*āthām*	*dhvam*
IIIrd person	*ta*	*ātām*	*ata*

VIII) a) The augment *a* (*aṭ*) is attached to the roots beginning with consonants by the *sūtra*.

luṅ-laṅ-lṛṅkṣvaḍudāttaḥ (6.4.71)

b) and the augment *ā* (*āḍ*) is attached to the roots beginning with vowels by the sūtra:

āḍajādīnām (6.4.72)

Bibliography

Abhyankar, Kashinath Vasudeva

1961 A Dictionary of Sanskrit Grammar. Baroda: Oriental Institute.

Bamshi Lal, Raja Govind Lal

1969 The rules for deriving forms with the L-suffixes *lṛt* and *luṅ* (In Hindi) Bombay.

Belvalkar, Shripad Krishna

1976 An Account of Different Existing Systems of Sanskrit Grammar. Varansı: Bhartiya Viddya Prakashan.

Bhandarkar, R.G.

1868 Second Book of Sanskrit (Reprint of Sixth Ed.)
New Delhi: Light & Life Publishers(1978)

Bhattacharya, Ram Shankar

1966 Pāṇini Vyākaraṇa Kā Anuśīlana (In Hindi). Varanasi: Indoloigical Book House

Bloomfield, Leonard

1931 language. New York : Henry Holt and Company.

Bloomfield, M.

1964 A Vedic Concordance. Delhı: Motılal Banrsıdass (Second ıssue)

Bloomfield and Edgerton, F.

1979 Vedic Variants (Vol 1-3) Delhı. Munshıram Manoharlal (First Indian Reprınt)

Bucknell, Roderick S.

1994 Sanskrit Manual. Delhi: Motilal Banarsidass Publishers Private Limited.

Burrow, Thomas

1955 The Sanskrit Language. London Faber and Faber.

Cardona, George

1980 PĀṆINI: A Survey of Research. Delhi; Motilal Banarnsidas. (First Indian Reprint)

1988 PĀṆINI : His work and its traditions. Vol. I. Delhi : Motilal Banarsidass.

Dvivedi, Kapil Dev

1951 Arthavijñāna aur Bhārtīya Darśana (In HIndi) Allahabad: Hindusthani Academy

Gonda, J.

1971 (Old Indian. Neitherlands : E.J. Brill. Leiden.)

Gune, Jayashree, Achyut

1974 Kauṇḍabhaṭṭa on the meaning of verbal endings.

Jijñāsu, Brahmadatta

1992 Sanskṛt Paṭhan-Pāṭhan Kī Anubhūtā Sarlatama Vidhı (In Hindi) Haryana: Shri Ram Lal Kapur Trust. (Ninth Ed)

Joshi, S.D.

1984 The Fundamentals of Anuvṛtti. Pune: Unıversity of Poona.

Junnarkar, P.B.

1987 An Introduction to Pāṇini (Book IV) Rishikesh : Sri Gangadhareswar Trust

Katre, S.M.

1981 A Glossary of grammatical elements and operation in Aṣṭādhyāyī, Mysore: Central Institute of Indian Languages.

Kiparsky, Paul

1980 Pāṇini as a Variālionist.

University of Poona. (Ed.by S. D. Joshi)

Kurlylowicz, J

1964 The Inflection Categories of Indo-europeans.

Heidelberg: Carlwinter Universitactvelag.

Macdonell, A

1910 Vedic Grammer Strassburg

Mishra, Madhusudan

1987 Introduction to Sanskrit Delhi

Parimal Publications

Mishra, Vidya Niwas

1966 The Descriptive Technique of Pāṇini The Hugue: Mouton and Co.

Murti, M. Srimannarayana

1984 An Introduction to Sanskrit Linguistics. Delhi : D.K. Publications

Narten, Johana

1964 Die Sigmatischen Aoriste im Veda Wiesbaden, Harrasowitz

Narang, Vaishna

1984 Communication of Situation Time in Hindi, New Delhi: Garimashri Prakashan.

S.C. Vasu

1891-93 The Aṣṭādhyāyī of Pāṇini (Vol.IxII) (Edited and Translated in English). Delhi: Low Price Publications. (Reprinted. 1990)

Scharfe, Hartmut

1971 Pānini's Metalanguage.Philacteliphia: American Philosophical Society.

Sharma, Ram Nath

1987 The Aṣṭādhyāyīof Pāṇini (Vol.I) Delhi: Mushiram Manoharlal . Publisher Pvt.Ltd.

Shastri, Charudeva

1990 Vyākaraṇacandrodaya (In Hindi) Vol. III. Delhi: Motilal Banarsidas.

Stall, J.F.(Ed.)

1972 A Reader on Sanskrit Grammarians. Cambridge: MIT Press.

Taraporewala, Irach J.S.

1967 Sanskrit Syntax. Delhi: Munshiram Manoharlal.

Thieme, Paul

1935 Pāṇini and the Veda
Allahabad: Globe Press

Whitney, W.D.

1955 Sanskrit Grammar. Cambridge: Oxford University Press
(Eighth issue of second edition)
1991 The Roots, Verb Forms and Primary Derivatives of Sanskrit Language (Reprint). Delhi: Motilal Banarsidass.

Williams, Monier

1978 A Practical Grammar of Sanskrit Language. Delhi : Mushiram Manoharlal. (First Indian Reprint.)

ıediate past.

Chand Kıran Saluja ıs teachıng ın Department of Educatıon, Unıversity of Delhı Basıcally he ıs engaged wıth the pedagogıcal ıssues of teachıng of languages, specıally Sanskrıt and Hındı

He has postgraduate degrees ın Sanskrıt, Hındı, Polıtıcal Scıence, Educatıon and Lınguıstıcs He ıs also a student of law